

LIST OF PUBLICATIONS (September 2022)

Professor Renato Machado Cotta, PhD

1. Cotta, R.M., and N.C. Roberty, "Redistribuição de Temperatura, Migração de Porosidade e Formação do Vazio Central em Varetas Combustíveis Cilíndricas", Proc. of the **IV Congresso Nacional de Matemática Aplicada e Computacional - CNMAC**, SBMAC, Sessão 6: Aplicações I - Mecânica de Partículas e Sólidos, Análise de Estruturas, pp.118-119, UFRJ, Rio de Janeiro, Brasil, 8 a 11 de setembro, 1981. <http://arquivo.sbmac.org.br/cnmacs/1981/cnmac1981.pdf>
2. Cotta, R.M., and N.C. Roberty, "Temperature distribution, porosity migration and formation of the central void in cylindrical fuel rods", **IAEA/INIS**, International Atomic Energy Agency, vol.14, no.7, Reference #14742814, 29p, Report PEN 117, Programa de Engenharia Nuclear, COPPE/UFRJ, January 1982. https://inis.iaea.org/collection/NCLCollectionStore/_Public/14/742/14742814.pdf?r=1
3. Benassi, M., R.M. Cotta, and C.E. Siewert, "The Pn Method for Radiative Transfer Problems with Reflective Boundary Conditions", **J. Quant. Spectroscopy Rad. Transfer**, V. 30, no. 6, pp. 547-553, 1983. doi: 10.1016/0022-4073(83)90010-9
4. Cotta, R.M. and M.N. Ozisik, "Eigenvalues Basic to Radial Diffusion in a Hollow Cylinder", **Ann. Nucl. Energy**, Vol.11, no.3, pp. 131-137, 1984. doi: 10.1016/0306-4549(84)90125-7
5. Ozisik, M.N., M.A. Boles and R.M. Cotta, "Eigenvalues Basic to Diffusion in the Part of a Sphere Cut out by a Cone", **J. Heat Transfer**, V. 106, pp. 472-474, 1984. doi:10.1115/1.3246698
6. Cotta, R.M. and M.N. Ozisik, "Laminar Forced Convection of Power Law Non-Newtonian Fluids Inside Ducts", **Wärme-und-Stoffübertrag.**, V. 20, pp. 211-218, 1986. doi: 10.1007/BF01303453
7. Cotta, R.M. and M.N. Ozisik, "Transient Forced Convection in Laminar Channel Flow with Stepwise Variations of Wall Temperature", **ASME Winter Annual Meeting**, Miami, FL, November 1985. ISSN: 04021215
8. Cotta, R.M. and M.N. Ozisik, "Eigenvalues Basic to Diffusion in a Hollow Cylinder Without Azimuthal Symmetry", **Ann. Nucl. Energy**, V. 13, pp. 93-99, 1986. doi: 10.1016/0306-4549(86)90097-6
9. Cotta, R.M. and M.N. Ozisik, "Thermally Developing Concurrent-Flow Circular Double-Pipe Heat Exchanger Analysis", **8th Int. Heat Transfer Conf.**, San Francisco, V. 6, pp. 2805-2810, August 1986. ISSN: 2377-424X (online); doi: 10.1615/IHTC8.1300

10. Cotta, R.M., M.N. Ozisik, and D.S. McRae, "Transient Heat Transfer in Channel Flow with Step Change in Inlet Temperature", **Num. Heat Transfer**, V. 9, pp. 619-630, 1986. doi: 10.1080/10407788608913497
11. Cotta, R.M. and M.N. Ozisik, "Transient Forced Convection in Laminar Channel Flow with Stepwise Variations of Wall Temperature", **Can J. Chem. Eng.**, V. 64, no.5, pp. 734-742, 1986. doi: 10.1002/cjce.5450640504
12. Cotta, R.M., M.D. Mikhailov and M.N. Ozisik, "Transient Conjugated Forced Convection in Ducts with Periodically Varying Inlet Temperature", **Int J. Heat & Mass Transfer**, V.30, no.10, pp.2073-2082, 1987. doi:10.1016/00179310(87)90087-1
13. Cotta, R. M. and M.N. Ozisik, "Laminar Forced Convection to Non-newtonian Fluids in Ducts with Prescribed Wall Heat Flux", **Int. Comm. Heat & Mass Transfer**, V. 13, no.3, May/June 1986. doi: 10.1016/0735-1933(86)90020-5
14. Cotta, R.M. and M.N. Ozisik, "Laminar Forced Convection in Ducts with Periodic Variation of Inlet Temperature", **Int. J. Heat Mass & Transfer**, V. 29, no.10, pp. 1495-1501, 1986. doi: 10.1016/0017-9310(86)90064-5
15. Cotta, R.M., "On the Eigenvalues Basic to Forced Convection of Non-Newtonian Fluids", **Rev. Bras. Ciências Mecânicas**, V. 10, No.1, pp. 25-41, 1988. http://revistas.abcm.org.br/indexed/vol_x_n_01-1988.pdf
16. Cotta, R.M., "Diffusion in Media with Prescribed Moving Boundaries: Application to Metals Oxidation at High Temperatures", Proc. of the **II Latin American Congress of Heat & Mass Transfer**, V. 1, pp. 502-513, São Paulo, Brasil, May 1986.
17. Cotta, R.M. and M.N. Ozisik, "Diffusion Problems with General Time-Dependent Coefficients", **Rev. Bras. Ciências Mecânicas**, V. 9, No.4, pp. 269-292, 1987. http://revistas.abcm.org.br/indexed/vol_ix_n_04-1987.pdf
18. Cotta, R.M., "Steady-State Diffusion with Space-Dependent Boundary Condition Parameters", Proc. of the **I National Meeting of Thermal Sciences - ENCIT-86**, pp. 163-166, Rio de Janeiro, Brazil, December 1986. <http://abcm.org.br/app/webroot/anais/encit/1986/i-encit-86.pdf>
19. Aparecido, J.B., R.M. Cotta, and M.N. Ozisik, "Analytical Solutions to Two-Dimensional Diffusion Type Problems in Irregular Geometries" **J. of the Franklin Institute**, V. 326, pp. 421-434, 1989. doi: 10.1016/0016-0032(89)90021-5
20. Fernandes, C.M. and R.M. Cotta, "A Note on the Solution of Integral Equations Basic to Radiative Transfer in Non-Participating Media", **1st. Brazilian Symposium of Heat & Mass Transfer**, pp. 231-246, Campinas, SP, July 1987.
21. Aparecido, J.B. and R.M. Cotta, "Fully Developed Laminar Flow in Trapezoidal Ducts", **9th Brazilian Congress of Mechanical Engineering, IX COBEM**, V. 1, pp. 25-28, Florianópolis, SC, December 1987.

22. Bambace, L.A., R.M. Cotta and P. Carajilescov, "Radiative Heat Transfer Solutions in Plane-Parallel Participating Media: - Application to Multilayer Insulations of Space Vehicles", **9th Brazilian Congress of Mechanical Engineering, IX COBEM**, V.1, pp.13-16, Florianópolis, SC, December 1987.
23. Cotta, R.M., A.J.K. Leiroz, and J.B. Aparecido, "Steady-State Diffusion Problems with Variable Equation Coefficients", **Int. J. Heat & Technology**, V.10, no.3-4, pp.104-129, 1992. ISSN: 03928764
24. Cotta, R.M. and E. Nogueira, "On the Eigenvalues Basic to Diffusion Through Composite Media", **Computational and Appl. Math.**, V.7, no.3, pp.201-213, 1988. ISSN:0101-8205
https://books.google.com.br/books?hl=en&lr=&id=vn8C0mwx_ZUC&oi=fnd&pg=PA201&dq=info:Kye_0Xg8TWQJ:scholar.google.com&ots=BzBaJE7JVy&sig=NvBLJ3LNOwyqz2-lnYc8A57pe9w&redir_esc=y#v=onepage&q&f=false
25. Cotta, R.M., M.N. Ozisik, and J. Mennig, "Coupled Integral Equation Approach for Phase-Change Problem in Two-Regions Finite Slab", **J. of the Franklin Institute**, V. 327, No.2, pp. 225-234, 1990. doi: 10.1016/0016-0032(90)90018-E
26. Aparecido, J.B. and R.M. Cotta, "Laminar Flow Inside Hexagonal Ducts", **Computational Mechanics**, V. 6, pp. 93-100, 1990. doi: 10.1007/BF00350515
27. Cotta, R.M., "Generalized Integral Transform Technique for Non-Transformable Diffusion Problems", **1st Pan-American Congress of Applied Mechanics, PACAM**, Rio de Janeiro, pp. 416-419, Jan. 1989.
28. Cotta, R.M., "On the Solution of Periodic Multidimensional Diffusion Problems", **Int. Comm. Heat & Mass Transfer**, V. 16, No.4, pp. 569-579, 1989. doi: 10.1016/0735-1933(89)90060-2
29. Nogueira, E. and R.M. Cotta, "Heat Transfer Solutions in Laminar Cocurrent Flow of Immiscible Liquids", **Heat and Mass Transfer (Wärme-und-Stoffübertragung)**, V. 25, pp. 361-367, 1990. doi: 10.1007/BF01811560
30. Ozisik, M.N., R.M. Cotta, and W.S. Kim, "Heat Transfer in Turbulent Forced Convection Between Parallel-Plates", **Canadian J. Chem. Eng.**, V. 67, pp. 771-776, 1989. doi: 10.1002/cjce.5450670508
31. Cotta, R.M. and C.A.C. Santos, "Nonsteady Diffusion Problems with Variable Coefficients in the Boundary Conditions", **J. Eng. Physics**, V. 61, No.5, pp. 1411-1418, 1992; also, in Russian, pp. 829-837, November 1991. doi: 10.1007/BF00872263
32. Aparecido, J.B. and R.M. Cotta, "Improved One-Dimensional Fin Solutions", **Heat Transf. Eng.**, V. 11, No.1, pp. 49-59, 1989. doi:10.1080/01457639008939722
33. Cotta, R.M., S.R.R. Passos, and C.A.C. Santos, "Thermal Entry Region Solution in Laminar Flow of Prandtl-Eyring Fluids", **Rev. Bras. Ciências Mecânicas**, Vol. 12,

No.4, pp. 395-406, 1990. http://revistas.abcm.org.br/indexed/vol_xii_-_v_04__1990.pdf

34. Aparecido, J.B. and R.M. Cotta, "Modified One-Dimensional Analysis of Radial Fins", Proc. of the **II National Meeting of Thermal Sciences - ENCIT 88**, pp. 225-228, São Paulo, Brazil, December 1988. <http://abcm.org.br/app/webroot/anais/encit/1988/ii-encit-88.pdf>
35. Santos, C.A.C., R.M. Cotta, and M.N. Ozisik, "Laminar Forced Convection Inside Externally Finned Tubes", Proc. of the **II National Meeting of Thermal Sciences - ENCIT 88**, pp. 87-90, São Paulo, Brazil, December 1988. https://inis.iaea.org/collection/NCLCollectionStore/_Public/20/065/20065962.pdf?r=1&r=1
36. Nogueira, E. and R.M. Cotta, "Thermohydraulics in Laminar Flow of Immiscible Liquids for Fouling Reduction", Proc. of the **II National Meeting of Thermal Sciences - ENCIT 88**, pp. 307-310, São Paulo, Brazil, December 1988. <http://abcm.org.br/app/webroot/anais/encit/1988/ii-encit-88.pdf>
37. Cotta, R.M., "Hybrid Numerical-Analytical Approach to Nonlinear Diffusion Problems", **Num. Heat Transfer, Part B**, V. 17, pp. 217-226, 1990. doi: 10.1080/10407799008961740
38. Aparecido, J.B. and R.M. Cotta, "Thermally Developing Laminar Flow Inside Rectangular Ducts", **Int. J. Heat & Mass Transfer**, V. 33, No.2, pp. 341-347, 1990. doi: 10.1016/0017-9310(90)90103-2
39. Kakaç, S., W. Li, and R.M. Cotta, "Theoretical and Experimental Study of Transient Laminar Forced Convection in a Duct with Timewise Variation of Inlet Temperature", **ASME Winter Annual Meeting**, HTD V. 123, pp. 57-63, San Francisco, 1989. ISSN: 02725673
40. Aparecido, J.B. and R.M. Cotta, "Laminar Thermally Developing Flow Inside Right Triangular Ducts", **Appl. Scientific Research**, V. 49, pp. 355-368, 1992. doi: 10.1007/BF00419981
41. Guedes, R.O.C., R.M. Cotta, and N.C.L. Brum, "Conjugated Heat Transfer in Laminar Flow Between Parallel-Plates Channel", **10th Brazilian Congress of Mechanical Engineering, X COBEM**, Vol.1, pp. 285-288, Rio de Janeiro, December 1989. OCLC: 35505848 <https://www.worldcat.org/title/cobem-89-anais-do-x-congresso-brasileiro-de-engenharia-mecanica-5-8-de-dezembro-de-1989-rio-de-janeiro-brasil/oclc/35505848>
42. Pessoa Filho, J.B. and R.M. Cotta, "Analytical Models for Radiative Heat Transfer from Solid Propellant Rocket Exhaust Plumes", **10th Brazilian Congress of Mechanical Engineering, X COBEM**, pp. 313-316, Rio de Janeiro, December 1989. OCLC: 35505848 <https://www.worldcat.org/title/cobem-89-anais-do-x-congresso-brasileiro-de-engenharia-mecanica-5-8-de-dezembro-de-1989-rio-de-janeiro-brasil/oclc/35505848>

43. Scofano Neto, F., R.M. Cotta, and J.W. Ribeiro, "Alternative Analytical Approach to Diffusion Problems with General Coupling at the Boundaries", **10th Brazilian Congress of Mechanical Engineering, X COBEM**, pp. 173-176, Rio de Janeiro, December 1989. OCLC: 35505848 <https://www.worldcat.org/title/cobem-89-anais-do-x-congresso-brasileiro-de-engenharia-mecanica-5-8-de-dezembro-de-1989-rio-de-janeiro-brasil/oclc/35505848>
44. Liu, H.T., M.M. Padki, S. Kakaç, Y. Ding, and R.M. Cotta, "Modeling of Two-Phase Flow Instabilities in a Vertical Upflow Boiling Channel", **10th Brazilian Congress of Mechanical Engineering, X COBEM**, V. 1, pp. 347-350, Rio de Janeiro, December 1989. OCLC: 35505848 <https://www.worldcat.org/title/cobem-89-anais-do-x-congresso-brasileiro-de-engenharia-mecanica-5-8-de-dezembro-de-1989-rio-de-janeiro-brasil/oclc/35505848>
45. Kim, W.S., R.M. Cotta, and M.N. Ozisik, "Laminar Internal Forced Convection with Periodically Varying, Arbitrarily Shaped Inlet Temperature", **9th Int. Heat Transfer Conference**, Paper # 16-TR-17, pp. 383-388, Jerusalem, Israel, August 1990. ISSN: 2377-424X (online); doi: 10.1615/ihtc9.2240
46. Diniz, A.J., J.B. Aparecido, and R.M. Cotta, "Heat Conduction with Ablation in a Finite Slab", **Int. J. Heat & Technology**, V. 8, pp. 30-43, 1990. ISSN: 0392-8764
47. Pessoa Filho, J.B. and R.M. Cotta, "Radiação Térmica Proveniente da Pluma de Foguetes a Propelente Sólido", **III Workshop de Combustão e Propulsão**, Lorena, SP, pp. 51-62, November 1989.
48. Cotta, R.M., "Hybrid Numerical-Analytical Approach to Diffusion-Convection Problems", **XV National Summer School** (Invited Lecture), Institute of Applied Mathematics & Computer Science - WMEI "LENIN" Varna, Bulgaria, pp. 107-124, August 1989.
49. Kakaç, S., R.M. Cotta, F.F. Hatay, and W. Li, "Unsteady Forced Convection in Ducts for a Sinusoidal Variation of Inlet Temperature", **9th Int. Heat Transfer Conf.**, Paper # 8-MC-01, pp. 265-270, Jerusalem, Israel, August 1990. ISSN: 2377-424X (online); doi: 10.1615/ihtc9.2520
50. Cotta, R.M., C. Baohua, and P.F.L. Heilbron Filho, "Analytical Solutions to Transient Convective Mass Transfer Within Porous Media", Invited Lecture, Proc. of the **NATO Advanced Study Institute - Convective Heat and Mass Transfer in Porous Media**, Cesme, Turkey, 6-17 August, 1990.
51. Guedes, R.O.C., R.M. Cotta, and N.C.L. Brum, "Heat Transfer in Laminar Tube Flow with Wall Axial Conduction Effects", **J. Thermophysics & Heat Transfer**, Vol. 5, No.4, pp. 508-513, 1991. doi: 10.2514/3.294
52. Santos, C.A.C., R.M. Cotta, and M.N. Ozisik, "Heat Transfer Enhancement in Laminar Flow Within Externally Finned Tubes", **Int. J. Heat & Technology**, Vol. 9, no.1-4, pp. 46-68, 1991. ISSN: 03928764

53. Guedes, R.O.C., and R.M. Cotta, "Periodic Laminar Forced Convection Within Ducts Including Wall Heat Conduction Effects", **Int. J. Eng. Science**, V. 29, No.5, pp. 535-547, 1991. doi: 10.1016/0020-7225(91)90059-C
54. Scofano Neto, F., and R.M. Cotta, "Lumped-Differential Analysis of Cocurrent Flow Double-Pipe Heat Exchanger", **Can. J. Chem. Eng.**, V. 70, pp. 592-595, 1992. doi: 10.1002/cjce.5450700325
55. Kakaç, S., W. Li and R.M. Cotta, "Unsteady Laminar Forced Convection in Ducts with Periodic Variation of Inlet Temperature", **J. Heat Transfer**, V. 112, pp. 913-920, 1990. doi: 10.1115/1.2910499
56. Scofano Neto, F., R.M. Cotta, and M.D. Mikhailov, "Alternative Approach to the Integral Transform Solution of Nonhomogeneous Diffusion Problems", **Int. Conf. on Advanced Computational Methods in Heat Transfer**, V.1 – Heat Conduction, Convection, and Radiation, pp. 39-50, Southampton, UK, July 1990. ISBN: 0945824688
57. Cotta, R.M., R. Serfaty and R.O. C. Guedes, "Integral Transform Solution of a Class of Transient Convection-Diffusion Problems", **Int. Conf. on Advanced Computational Methods in Heat Transfer**, V.1 – Heat Conduction, Convection, and Radiation, pp. 239-250, Southampton, UK, July 1990. ISBN: 0945824688
58. Aparecido, J.B. and R.M. Cotta, "Analytical Solution to Parabolic Multidimensional Diffusion Problems Within Irregularly Shaped Domains", **Int. Conf. on Advanced Computational Methods in Heat Transfer**, V.1 – Heat Conduction, Convection, and Radiation, pp. 27-38, Southampton, UK, July 1990. ISBN: 0945824688
59. Campos Silva, J.B., R.M. Cotta, and J.B. Aparecido, "Analytical Solutions to Simultaneously Developing Laminar Flow Inside Parallel-Plates Channel", **Int. J. Heat & Mass Transfer**, V. 35, No.4, pp. 887-895, 1992. doi: 10.1016/0017-9310(92)90255-Q
60. Cotta, R.M., C. Baohua, and P.F.L. Heilbron Filho, "Analytical Solutions to Transient Convective Mass Transfer Within Porous Media", **NATO ASI Series E: Applied Sciences**, V. 196, Part I – Fundamentals, pp. 525-540, Eds. S. Kakaç et al., Springer Netherlands, 1991. ISBN 978-94-010-5419-5, ISBN 978-94-011-3220-6 (eBook), doi: 10.1007/978-94-011-3220-6_16
61. Cotta, R.M., C.F.M. Santos, and J.B. Aparecido, "Transient Fin Analysis with Time-Dependent Surface Dissipation", **Latin Amer. Appl. Research**, V. 23, pp. 11-18, 1993. ISSN: 0327-0793
62. Serfaty, R. and R.M. Cotta, "Hybrid Analysis of Transient Nonlinear Convection-Diffusion Problems", **Int. J. Num. Meth. Heat & Fluid Flow**, V. 2, pp. 55-62, 1992. doi:10.1108/eb017479
63. Carvalho, T.M.B., R.M. Cotta, and J.B. Pessoa Filho, "Análise Térmica da Região da Base de Veículos Espaciais Durante a Partida e Vôo Propulsado a Grandes

- Altitudes", **III Encontro Nacional de Ciências Térmicas, ENCIT 90**, V. 1, pp. 63-68, Itapema, SC, December 1990. http://abcm.org.br/app/webroot/anais/encit/1990/iii-encit-90-vol_1.pdf
64. Serfaty, R. and R.M. Cotta, "Integral Transform Solutions of Diffusion Problems With Nonlinear Equation Coefficients", **Int. Comm. Heat & Mass Transfer**, V. 17, N. 6, pp. 851-864, 1990. doi: 10.1016/0735-1933(90)90030-N
65. Leiroz, A.J.K. and R.M. Cotta, "Convergence Enhancement of Eigenfunction Expansions for Nonhomogeneous Elliptic Diffusion Problems", **III Encontro Nacional de Ciências Térmicas, ENCIT 90**, V. 1, pp. 335-340, Itapema, SC, December 1990. http://abcm.org.br/app/webroot/anais/encit/1990/iii-encit-90-vol_1.pdf
66. Nogueira, E., N.C.L. Brum, and R.M. Cotta, "Escoamento Anular Gás-Líquido em Dutos Verticais com Líquido Entranhado no Núcleo", **III Encontro Nacional de Ciências Térmicas, ENCIT 90**, V. 1, pp. 559-564, Itapema, SC, December 1990. https://inis.iaea.org/collection/NCLCollectionStore/_Public/22/090/22090645.pdf?r=1&r=1
67. Scofano Neto, F., and R.M. Cotta, "Counterflow Double-Pipe Heat Exchangers Analysis Through a Mixed Lumped-Differential Formulation", **Int. J. Heat & Mass Transfer**, V. 35, No.7, pp. 1723-1731, 1992. doi: 10.1016/0017-9310(92)90142-F
68. Scofano Neto, F., and R.M. Cotta, "Improved Hybrid Lumped-Differential Formulation for Double-Pipe Heat Exchangers Analysis", **J. Heat Transfer**, V. 115, pp. 921-927, 1993. doi:10.1115/1.2911388
69. Scofano Neto, F. and R.M. Cotta, "Dynamic Analysis of Double-Pipe Heat Exchangers Subjected to Periodic Inlet Temperature Disturbances", **Heat and Mass Transfer (Wärme-und Stoffübertragung)**, V. 28, pp. 497-503, 1993. doi: 10.1007/BF01539681
70. Mikhailov, M.D. and R.M. Cotta, "Unified Integral Transform Method", **Rev. Bras. Ciências Mecânicas** (Invited Paper), Vol. 12, No.3, pp. 301-310, 1990. http://revistas.abcm.org.br/indexed/vol_xii_-_n_03_-_1990.pdf
71. Carvalho, T.M.B., R.M. Cotta, and M.D. Mikhailov, "Flow Development in the Entrance Regions of Ducts", **Comm. Num. Meth. Eng.**, V.9, pp. 503-509, 1993. doi: 10.1002/cnm.1640090608
72. Cotta, R.M. and M.D. Mikhailov, "The Integral Transform Method", **Appl. Math. Modelling**, V. 17, pp. 156-161, 1993. doi: 10.1016/0307-904X(93)90041-E
73. Cotta, R.M. and T.M.B. Carvalho, "Hybrid Analysis of Boundary Layer Equations for Internal Flow Problems", **7th Int. Conf. on Num. Meth. in Laminar & Turbulent Flow**, Part 1, pp. 106-115, Stanford CA, July 15th-19th, 1991. ISBN 0906674778

74. Cotta, R.M. and R. Serfaty, "Integral Transform Algorithm for Parabolic Diffusion Problems with Nonlinear Boundary and Equation Source Terms", **7th Int. Conf. on Num. Meth. for Thermal Problems**, Part 2, pp. 916-926, Stanford, CA, July 1991.
75. Machado, H.A., R.M. Cotta, and J.B. Pessoa Filho, "Heat Transfer and Particle Drag in One-Dimensional Two-Phase Flow Through a Nozzle of a Solid Propellant Rocket", **11th Brazilian Congress of Mechanical Engineering, XI COBEM**, Vol.3, pp. 101-104, São Paulo, December 1991.
76. Ruperti Jr., N.J. and R.M. Cotta, "Heat Conduction with Ablation in Multilayered Media", **11th Brazilian Congress of Mechanical Engineering, XI COBEM**, Vol.3, pp. 413-416, São Paulo, December 1991.
77. Pessoa Filho, J.B. and R.M. Cotta, "Thermal Radiation from Solid Propellant Rocket Exhaust Plumes", **Int. J. Heat & Technology**, Vol.14, no.1, pp.21-38, 1996. ISSN: 03928764
78. Baohua, C. and R.M. Cotta, "Integral Transform Analysis of Natural Convection in Porous Enclosures", **Int. J. Num. Meth. in Fluids**, V. 17, pp. 787-801, 1993. doi: 10.1002/fld.165017090
79. Perez Guerrero, J.S. and R.M. Cotta, "Integral transform solution for the lid-driven cavity flow problem in streamfunction-only formulation ", **Int. J. Num. Meth. in Fluids**, V. 15, pp. 399 - 409, 1992. doi: 10.1002/fld.1650150403
80. Mikhailov, M.D. and R.M. Cotta, "Integral Transform Method for Eigenvalue Problems", **Comm. Num. Meth. Eng.**, V. 10, pp. 827-835, 1994. doi: 10.1002/cnm.1640101009
81. Guedes, R.O.C., M.N. Ozisik, and R.M. Cotta, "Conjugated Periodic Turbulent Forced Convection in a Parallel Plate Channel", **1992 National Heat Transfer Conference**, Heat Transfer Division, HTD, V. 201, pp. 63-70, San Diego, CA, August 1992. ISSN: 02725673
82. Ribeiro, J.W., R.M. Cotta, and M.D. Mikhailov, "Integral Transform Solution of Luikov's Equations for Heat and Mass Transfer in Capillary Porous Media", **Int. J. Heat & Mass Transfer**, V. 36, No.18, pp. 4467-4475, 1993. doi: 10.1016/0017-9310(93)90131-O
83. Leiroz, A.J.K. and R.M. Cotta, "On the Solution on Nonlinear Elliptic Convection-Diffusion Problems Through the Integral Transform Method", **Num. Heat Transfer, part B - Fundamentals**, V. 23, pp. 401-411, 1993. doi:10.1080/10407799308914908
84. Cotta, R.M., J.S. Perez Guerrero and F. Scofano Neto, "Hybrid Solution of the Incompressible Navier-Stokes Equations Via Integral Transformation", **II Int. Conf. on Adv. Comp. Meth. in Heat Transfer, Heat Transfer 92**, V. 1, pp. 735-750, Milan, Italy, July 1992. ISBN: 185312172X

85. Scofano Neto, F. and R.M. Cotta, "Thermal Analysis of Non-Newtonian Fluid Heat Exchanger", **2o. Congresso Norte-Nordeste de Engenharia Mecânica, II CEM-NNE**, V. 2, pp. 279-286, João Pessoa, Pb, June 1992. https://abcm.org.br/anais/cem_nne/1992_/
86. Cotta, R.M. and J.E.V. Gerk, "Mixed Finite Difference/Integral Transform Approach for Parabolic-Hyperbolic Problems in Transient Forced Convection", **Numerical Heat Transfer - Part B: Fundamentals**, Vol 25, pp. 433-448, 1994. doi:10.1080/10407799408955929
87. Ostwald, P.N. and R.M. Cotta, "Simulation of Radionuclides Migration in Porous Media Through Integral Transform Method", **IV Encontro Nacional de Ciências Térmicas, IV ENCIT**, pp. 325-328, Rio de Janeiro, RJ, 1992. http://abcm.org.br/app/webroot/anais/encit/1992/iv-encit-92-i_sient.pdf
88. Cotta, R.M., P.G.P. Toro, and H.A. Machado, "Analytical Model for Aerodynamic Heating of Space Vehicles in Hypersonic Flow: - Stagnation Region Analysis with Ablative Protection", **IV Encontro Nacional de Ciências Térmicas, IV ENCIT**, pp. 137-140, Rio de Janeiro, RJ, 1992. http://abcm.org.br/app/webroot/anais/encit/1992/iv-encit-92-i_sient.pdf
89. Scofano Neto, F. and R.M. Cotta, "Alternative Analytical Approach to Diffusion Equations Coupled Via a Boundary Condition", **IV Encontro Nacional de Ciências Térmicas, IV ENCIT**, pp. 279-282, Rio de Janeiro, RJ, 1992. http://abcm.org.br/app/webroot/anais/encit/1992/iv-encit-92-i_sient.pdf
90. Ruperti Jr., N.J., E.L. Zapparoli, and R.M. Cotta, "Hybrid Solution for Phase Change Problems in Multiregion Media", **30th Eurotherm Seminar - Heat Transfer in Phase-Change Processes**, pp. 181-184, Orsay, France, October 1992.
91. Cotta, R.M. "Computational Integral Transform Approach in Nonlinear Diffusion and Convection-Diffusion Problems", **Laboratório di Ingegneria Nucleare Di Montecuccolino, Serie Scientifica** (Invited Paper), LIN-1202, Università Degli Studi Di Bologna, Italy, 1992.
92. VARIABLE WALL HEAT ISSN 0100-7386; http://revistas.abcm.org.br/indexed/vol_xv_-_n_03_-_1993.pdf
93. Machado, H.A. and R.M. Cotta, "Integral Transform Method for Boundary Layer Equations in Simultaneous Heat and Fluid Flow Problems", **Int. J. Num. Meth. Heat & Fluid Flow**, V. 5, pp. 225-237, 1995. doi: 10.1108/EUM0000000004118
94. Ribeiro, J.W. and R.M. Cotta, "Numerical-Analytical Study of Nonlinear Drying Problems with Radiative Boundaries", Proc. of the **6th Int. Symp. Transport Phenomena: - Thermal Engineering**, V. 1, pp. 209-214, Seoul, Korea, May 1993. ISBN:1-56700-015-0
95. Ribeiro, J.W. and R.M. Cotta, "On the Solution of Nonlinear Drying Problems in Capillary Porous Media Through Integral Transformation of Luikov Equations",

Int. J. Num. Meth. Eng., V. 38, pp. 1001-1020, 1995.
doi: 10.1002/nme.1620380609

96. Kakaç, S. and R.M. Cotta, "Experimental and Theoretical Investigation on Transient Cooling of Electronic Systems", Proc. of the **NATO Advanced Study Institute on Cooling of Electronic Systems**, Invited Lecture, Cesme, Turkey, June 21-July 2, 1993.
97. Cotta, R.M. and R. Ramos, "Error Analysis and Improved Formulations for Extended Surfaces", Proc. of the **NATO Advanced Study Institute on Cooling of Electronic Systems**, Invited Lecture, Cesme, Turkey, June 21-July 2, 1993.
98. Santos, C.A.C. and R.M.Cotta, "Dynamic Analysis of Heat Exchangers with Externally Finned Tubes", **ICHMT Int. Symp. on New Developments in Heat Exchangers**, Portugal, October 1993.
99. Scofano Neto, F. and R.M. Cotta, "A Heat Transfer Analysis of Parallel-Plate Heat Exchangers", Proc. of the **8th Int. Conf. on Numerical Methods in Thermal Problems**, Swansea, Part 2, pp. 1484-1495, Pineridge Press, UK, July 1993. ISBN:0-906674-80-8
100. Perez Guerrero, J.S., R.M. Cotta, and F. Scofano Neto, "Integral Transformation of Navier-Stokes Equations for Incompressible Laminar Flow in Channels", Proc. of the **8th Int. Conf. on Numerical Methods in Laminar and Turbulent Flow**, Swansea, Part 2, pp. 1195-1206, Pineridge Press, UK, July 18th-23rd, 1993. ISBN: 0906674816
101. Santos, C.A.C., R.M. Cotta, and J.A. Lima, "Thermally Developing Laminar Flow of Non-Newtonian Ellis Fluids", Proc. of the **3rd North-Northeast Congress of Mechanical Engineering, III CEM-NNE**, V. 1, pp. 41-44 Belém, PA, June 1994.
102. Scofano Neto, F., and R.M. Cotta, "An Analytical Methodology for the Solution of Linear Diffusion Equations Coupled by Boundary Conditions", Proc. of the **12th Brazilian Congress of Mechanical Engineering, XII COBEM**, Vol. 2, pp. 561-564, Brasília, DF, December 1993.
103. Cotta, R.M. and R. Ramos, "Integral Transforms in the Two-Dimensional Nonlinear Formulation of Longitudinal Fins with Variable Profile", **Int. J. Num. Meth. Heat & Fluid Flow**, V.8, no.1, pp.27-42, 1998. doi: 10.1108/09615539810197916
104. Cotta, R.M. and R. Ramos, "Error Analysis and Improved Formulations for Extended Surfaces", **Cooling of Electronic Systems**, NATO ASI Series E: Applied Sciences, Eds. S. Kakaç et al., Vol. 258, Chap.29, pp. 753-787, Springer, Dordrecht, 1994. doi: 10.1007/978-94-011-1090-7_29
105. Kakaç, S. and R.M. Cotta, "Unsteady Forced Convection in a Duct with and without Arrays of Block-Like Electronic Components", **Cooling of Electronic Systems**, NATO ASI Series E: Applied Sciences, Eds. S. Kakaç et al., Vol. 258,

Chap.13, pp. 239-275, Springer, Dordrecht, 1994. doi: 10.1007/978-94-011-1090-7_13

106. Guedes, R.O.C., M.N. Ozisik, and R.M. Cotta, "Conjugated Periodic Turbulent Forced Convection in a Parallel Plate Channel", **J. Heat Transfer**, V.116, pp.40-46, February 1994. doi: 10.1115/1.2910881
107. Quaresma, J.N.N. and R.M. Cotta, "Exact Solutions for Thermally Developing Tube Flow with Variable Wall Heat Flux", **Int. Comm. Heat & Mass Transfer**, V. 21, pp.729-742, 1994. doi: 10.1016/0735-1933(94)90074-4
108. Cotta, R.M., "A Review of the Integral Transform Method in Nonlinear Heat and Fluid Flow Problems", Proc. of the **1st Ibero American Congress of Mechanical Engineering** (Invited Lecture), V.1, pp. 35-64, Madrid, Spain, September 1993.
109. Barbuto, F.A.A. and R.M. Cotta, "Integral Transformation of Elliptic Problems Within Irregular Domains: - Fully Developed Channel Flow", **Int. J. Num. Meth. Heat & Fluid Flow**, V.7, no.8, pp.778-793, 1997. doi: 10.1108/09615539710193065
110. Cotta, R.M. and L.C.G. Pimentel, "Developing Turbulent Duct Flow: - Hybrid Solution Via Integral Transforms and Algebraic Models", **Int. J. Num. Meth. in Heat & Fluid Flow**, V.8, no.1, pp.10-26, 1998. doi: 10.1108/09615539810197907
111. Cotta, R.M., "Benchmark Results in Computational Heat and Fluid Flow: - The Integral Transform Method", **Int J. Heat & Mass Transfer** (Invited Paper), V. 37, Suppl. 1, pp. 381-394, March 1994. doi: 10.1016/0017-9310(94)90038-8
112. Perez Guerrero, J.S., and R.M. Cotta, "Integral Transform Solution of Developing Laminar Duct Flow in Navier- Stokes Formulation", **Int. J. Num. Meth. in Fluids**, V. 20, pp. 1203-1213, 1995. doi: 10.1002/flid.1650201102
113. Brown, D.M., S. Kakaç, C.A.C. Santos and R.M. Cotta, "Numerical and Experimental Investigation of Unsteady Laminar Forced Convection in Circular Ducts with Periodic Variation of Inlet Temperature", Proc. of the **2nd Biennial European-ASME Joint Conference on Engineering Systems Design and Analysis**, London, UK, ASME Heat Transfer Division, HTD - Vol. 64-1, pp.119-126, July 1994. ISBN: 0791812804
114. Oliveira, M.C., R. Ramos, and R.M. Cotta, "On the Eigenvalues Basic to the Analytical Solution of Convective Heat Transfer with Axial Diffusion Effects", **Comm. Num. Meth. Eng.**, V.11, pp.287-296, 1995. doi: 10.1002/cnm.1640110402
115. Cotta, R.M., "The Integral Transform Method in Computational Heat and Fluid Flow", Special Keynote Lecture, Proc. of the **10th Int. Heat Transfer Conf.**, Brighton, UK, SK-3, Vol. 1, pp. 43-60, August 1994. ISSN: 2377-424X (online); doi: 10.1615/ihtc10.5250

116. Santos, C.A.C., D.M. Brown, S. Kakaç and R.M. Cotta, "Analytical and Experimental Study of Turbulent Forced Convection in the Thermal Entrance Region of a Circular Duct", **The Japan Society of Mechanical Engineers - Spring Annual Meeting**, Session B-III, Paper No.1036, Tokyo - Japan, March 1994.
117. Santos, C.A.C., D.M. Brown, S. Kakaç and R.M. Cotta, "Analysis of Unsteady Laminar Forced Convection in a Circular Duct", **3rd North-Northeast Mechanical Engineering Conference, III CEM-NNE**, V. 1, pp. 71-74, Belém, Brasil, June 1994.
118. Perez Guerrero, J.S. and R.M. Cotta, "Benchmark Integral Transform Results for Flow Over a Backward - Facing Step", **Computers & Fluids**, Vol.25, no.5, pp.527-540, 1996. doi: 10.1016/0045-7930(96)00005-9
119. Almeida, A.R. and R.M. Cotta, "Analytical Solution of the Tracer Equation for the Homogeneous Five-Spot Problem", **SPE Journal, Soc. Petroleum Eng.**, Paper # 29218, V. 1, no. 1, pp.31-38, 1996. doi: 10.2118/29218-PA
120. Scofano Neto, F., R.O.C Guedes and R.M. Cotta, "Unsteady Conjugated Heat Transfer Analysis in Low Reynolds Pipe Flow", 3rd Int. Conf. Adv. Comp. Meth. in Heat Transfer, Southampton, UK; also, **WIT Transactions on Engineering Sciences**, V.5, pp. 115-122, August 1994. doi: 10.2495/HT940151 <https://www.witpress.com/elibrary/wit-transactions-on-engineering-sciences/5/11544>
121. Brown, D.M., C.A.C. Santos, S. Kakaç and R.M. Cotta, "Dynamic Analysis of Unsteady Turbulent Forced Convection Heat Transfer Within the Thermal Entrance Region of Circular Ducts", **International Mechanical Engineering Congress and Exposition - ASME Winter Annual Meeting**, Chicago, Illinois, ASME HTD-Vol. 285, pp. 9-16, November 1994. ISSN: 02725673
122. Correa, E.J., J.N.N. Quaresma, R.R. Gondim and R.M. Cotta, "Improved Lumped Differential Formulations of Transient Heat Conduction Problems", **3rd North-Northeast Mechanical Engineering Conference, III CEM-NNE**, V. 1, pp. 86-89, Belém, Brasil, June 1994.
123. Cotta, R.M., "Simulations and Benchmarks in Thermal-Fluids Sciences: - The Integral Transform Approach", Invited Lecture, **3rd North-Northeast Mechanical Engineering Conference, III CEM-NNE**, Belém, PA, Brasil, V. 1, pp. 9-27, June 1994.
124. Almeida, A.R. and R.M. Cotta, "Integral Transform Methodology for Convection-Diffusion Problems in Petroleum Reservoir Engineering", **Int. J. Heat & Mass Transfer**, V.38, no.18, pp.3359-3367, 1995. doi: 10.1016/0017-9310(95)00101-E
125. Santos, C.A.C., D.M. Brown, S. Kakaç and R.M. Cotta "Analysis of Unsteady Turbulent Forced Convection in the Thermal Entrance Region of a Circular Duct With Periodic Inlet Temperature", **ICHMT Int. Symp. on Turbulence, Heat and Mass Transfer**, Lisbon, Portugal, August 1994.

126. Cotta, R.M. and J.W. Ribeiro, "Sistema Diferencial Não-Linear Acoplado para Secagem em Meios Capilares Porosos", Anais do **XVII Congresso Nacional de Matemática Aplicada e Computacional, CNMAC 94**, V.2, pp. 544-548, Vitoria, ES, 29 de agosto a 2 de setembro, 1994.
127. Ribeiro, J.W., B.L. Silva, R.M. Cotta and A.S.B. Sombra, "Analytical-Numerical Analysis of Internal Contact Drying of Porous Sheet", Proc. of the **6th Asian Congress of Fluid Mechanics**, Vol.2, pp.1274-1277, Asian Fluid Mechanics Committee, Singapore, May 22nd-26th, 1995. ISBN:9810065612
128. Perez-Guerrero, J.S., J.A. Castelo Branco Jr., E.F. Silva, L.C.G. Pimentel and R.M. Cotta, "The Use of Supercomputers for Integral Transform Benchmarks in Convection-Diffusion Problems", **10. Seminário Nacional de Supercomputação, SUPERCOMP 94**, pp. 41-44, Porto Alegre, RS, September 1994.
129. Santos, C.A.C., D.M. Brown, S. Kakaç and R.M. Cotta, "Turbulent Forced Convective Heat Transfer Within the Thermal Entrance Region of Circular Ducts", **XII Congresso Nazionale Sulla Trasmissione del Calore**, Università di L'Aquila, Italy, pp. 55-66, June 1994.
130. Almeida, A.R. and R.M. Cotta, "A Comparison of Convergence Acceleration Schemes for Eigenfunction Expansions of Partial Differential Equations", **Int. J. Num. Meth. Heat & Fluid Flow**, V.6, no.6, pp.85-97, 1996. doi: 10.1108/09615539610131280
131. Almeida, A.R. and R.M. Cotta, "On the Solution of Convection-Diffusion Problems Within Unbounded Domains Through Integral Transformation", **J. of the Franklin Institute**, V.336, pp.821-832, 1999. doi: 10.1016/S0016-0032(99)00007-1
132. Santos, C.A.C., D.M. Brown, S. Kakaç and R.M. Cotta, "Analysis of Unsteady Forced Convection in Turbulent Duct Flow", **J. Thermophysics & Heat Transfer**, Vol. 9, No.3, pp. 508-515, 1995. doi: 10.2514/3.694
133. Nogueira, E., R.M. Cotta, N.C.L. Brum and S. Kakaç, "Analytical Solution with Algebraic Turbulence Models for Two-Phase Gas-Liquid Annular Flow & Heat Transfer", **1st Int. Symp. Two-Phase Flow Modelling and Experimentation**, Vol.1, pp.389-396, Edizioni ETS, Rome, Italy, Oct. 1995. ISBN: 8877418524
134. Figueira da Silva, E., J.S. Perez-Guerrero, and R.M. Cotta, "Integral Transform Solution of Boundary Layer Equations in Streamfunction-only Formulation", **Int. J. Non-Linear Mechanics**, V.34, pp.51-61, 1999. doi: 10.1016/S0020-7462(97)00079-6
135. Correa, E.J., R.M. Cotta, and H.R.B. Orlande, "On the Reduction of Computational Costs in Eigenfunction Expansions of Multidimensional Diffusion Problems", **Int. J. Num. Meth. Heat & Fluid Flow**, V.7, no.7, pp.675-695, 1997. doi: 10.1108/09615539710185569

136. Cheroto, S., S.M. Silva-Guigon, J.W. Ribeiro and R.M. Cotta, "Lumped-Differential Formulations for Drying in Capillary Porous Media", **Drying Technology**, V.15, nos.3&4, pp.811-835, 1997. doi: 10.1080/07373939708917263
137. Duarte, J.B.F., J.W. Ribeiro and R.M. Cotta, "An Integral Transform Solution of Two-Dimensional Drying of Moist Porous Media", Proc. of the **3rd Int. Congress on Industrial and Applied Mathematics, ICIAM 95**, Ed. K. Kirchgassner, Wiley-VCH, Hamburg, Germany, July 3rd-7th, 1995. ISBN: 3055016823
138. Santos, C.A.C., D.M. Brown, R. M. Cotta, L.C. Pimentel, and S. Cheroto, "Developing Transient Turbulent Forced Flow in Parallel Plate Channel With Inline Array of Protruding Surfaces", Proc. of the **ASME National Heat Transfer Conference**, August 6th-9th, Portland, Oregon, 1995. ISBN:0791817040
139. Romani, Z.V., H.R.B. Orlande and R.M. Cotta, "Approximate Solutions for the Solidification of Alloys", Proc. of the **13th Brazilian Congress of Mechanical Engineering, XIII COBEM**, ABCM, Belo Horizonte, MG, December 1995 (CD-ROM). https://abcm.org.br/anais/cobem/1995/cobem-95-vol_04.pdf
140. Correa, E.J. and R.M. Cotta, "Enhanced Lumped-Differential Formulations of Diffusion Problems", **Appl. Math. Modeling**, V.22, pp.137-152, 1998. doi: 10.1016/S0307-904X(98)00005-5
141. Figueira da Silva, E. and R.M. Cotta, "Benchmark Results for Internal Forced Convection Through Integral Transformation", **Int. Comm. Heat & Mass Transfer**, Vol.23, no.7, pp.1019-1029, 1996. doi: 10.1016/0735-1933(96)00084-X
142. Mikhailov, M.D. and R.M. Cotta, "Ordering Rules for Double and Triple Eigenseries in the Solution of Multidimensional Heat and Fluid Flow Problems", **Int. Comm. Heat & Mass Transfer**, V.23, pp.299-303, January 1996. doi: 10.1016/0735-1933(96)00015-2
143. Nogueira, E., R.M. Cotta, N.C.L. Brum, and S. Kakaç, "Integral Transform Solution of Heat Transfer in Two-Phase Gas-Liquid Annular Flow", **Int. J. Heat & Technology**, V.14, no.1, pp.97-116, 1996. ISSN: 03928764
144. Brown, D.M., C.A.C.Santos, R.M.Cotta, and S.Kakaç, "Analysis of Steady Forced Convection in Thermally Developing Turbulent Duct Flows", **Int. J. Num. Meth. Heat & Fluid Flow**, V.7, no.5, pp.425-437, 1997. doi: 10.1108/09615539710187774
145. Pimentel, L.C.G., R.M.Cotta, and S.Kakaç, "Fully Developed Turbulent Flow in Ducts with Symmetric and Asymmetric Rough Walls", **Chem. Eng. J.**, V.74, pp.147-153, 1999. doi: 10.1016/S1385-8947(99)00036-4
146. Perez Guerrero, J.S., and R.M.Cotta, "A Review on Benchmark Results for the Navier-Stokes Equations Through Integral Transformation", **Revista Perfiles de Ingenieria**, (Invited Paper), V.1, no.4, pp.C.30-33, Peru, July 1995. doi:10.31381/perfiles_ingenieria.v1i10

147. Pereira, L.M., J.S. Perez Guerrero, and R.M. Cotta, "Integral Transformation of the Navier-Stokes Equations in Cylindrical Geometry", **Computational Mechanics**, V.21, no.1, pp.60-70, 1998. doi: 10.1007/s004660050
148. Figueira da Silva, E. and R.M.Cotta, "Mixed Convection Within Vertical Parallel-Plates:- Hybrid Solution by Integral Transforms", **Num. Heat Transfer, part A - Applications**, V.33, pp.85-106, 1998. doi: 10.1080/10407789808913929
149. Mikhailov, M.D. and R.M.Cotta, "Temperature Oscillations in a Slug Tube Flow", **Int. Comm. Heat & Mass Transfer**, V.24, no.4, pp.575-578, 1997. doi: 10.1016/S0735-1933(97)00043-2
150. Lima, J.A., J.S.Perez Guerrero, and R.M.Cotta, "Hybrid Solution of the Averaged Navier-Stokes Equations for Turbulent Flow", **Computational Mechanics**, V.19, no.4, pp.297-307, 1997. doi: 10.1007/s004660050178
151. Leal, M.A., J.S.Perez Guerrero, and R.M.Cotta, "Natural Convection Inside Two-Dimensional Cavities:- The Integral Transform Method", **Comm. Num. Meth. Eng.**, V.15, pp.113-125, 1999. doi: 10.1002/(SICI)1099-0887(199902)15:2<113::AID-CN228>3.3.CO;2-0
152. Bolivar, M.A.H., P.L.C.Lage, and R.M.Cotta, "Generalized Integral Transform Solution to the Laminar Thermal Boundary Layer Problem for Flow Past a Cylinder", Proc. of the **6th National Thermal Sciences Meeting, ENCIT-96**, V.2, pp. 723-728, Florianópolis, SC, Brasil, November 1996. http://abcm.org.br/app/webroot/anais/encit/1996/vi-encit-96-vol_ii.pdf
153. Mikhailov, M.D. and R.M.Cotta, "Eigenvalues for the Graetz Problem in Slip-Flow", **Int. Comm. Heat & Mass Transfer**, V.24, no.3, pp.449-451, 1997. doi: 10.1016/S0735-1933(97)00030-4
154. Figueira da Silva, E., J.S.Perez Guerrero, and R.M.Cotta, "A Comparison of Integral Transform Strategies for Solving the Boundary Layer Equations", Proc. of the **6th National Thermal Sciences Meeting, ENCIT-96**, V.1, pp.73-78, Florianópolis, SC, Brasil, November 1996. http://abcm.org.br/app/webroot/anais/encit/1996/vi-encit-96-vol_i.pdf
155. Mikhailov, M.D. and R.M.Cotta, "Steady-periodic Hyperbolic Heat Conduction in a Finite Slab", **Int. Comm. Heat & Mass Transfer**, V.24, no.5, pp.725-731, 1997. doi: 10.1016/S0735-1933(97)00057-2
156. Cotta, R.M., "Integral Transforms in Transient Convection:- Benchmarks and Engineering Simulations", Invited Keynote Lecture, **ICHMT International Symposium on Transient Convective Heat Transfer**, Turkey, pp.433-453, August 1996. doi:10.1615/ICHMT.1996.TransientConvHeatTransf.400 https://inis.iaea.org/collection/NCLCollectionStore/_Public/28/043/28043767.pdf#page=133
157. Pimentel, L.C.G., E.Nogueira, R.M.Cotta, and S.Kakaç, "Análise Comparativa de Modelos para o Número de Prandtl Turbulento em Convecção Forçada Interna",

Proc. of the **6th National Thermal Sciences Meeting, ENCIT-96**, V.2, pp.729-734, Florianópolis, Brasil, November 1996.
http://abcm.org.br/app/webroot/anais/encit/1996/vi-encit-96-vol_ii.pdf

158. Malta, A.A., and R.M. Cotta, “Análise da temperatura da placa de lingotamento contínuo para o enformamento a quente na COSIPA: Solucao via G.I.T.T. e medicoes termográficas”, **Proc. of the 51st Annual Congress of the Brazilian Association of Metallurgy and Materials**, V.1, pp. 973-987, ABM, Porto Alegre (Brazil), 5-9 Aug 1996. OSTI ID:594781
159. Brown, D.M., C.A.C.Santos, and R.M.Cotta, “Heat Transfer Inside Parallel-Plate Channels with Impermeable Modules and Turbulent Flows:- A Theoretical Analysis Based on the Generalized Integral Transform Technique”, **Research Signpost, Scientific Information Guild (Heat, Mass & Momentum Transfer)**, Invited paper, T.C.36/248(1), Trivandrum/India, August 1996.
160. Traiano, F.M.L., R.M.Cotta, and H.R.B.Orlande, “Improved Approximate Formulations for Anisotropic Heat Conduction”, **Int. Comm. Heat & Mass Transfer**, V.24, no.6, pp.869-878, 1997. doi: 10.1016/S0735-1933(97)00073-0
161. Cotta, R.M. and M.A. Leal, “The Generalized Integral Transform Technique in Transient Convection-Diffusion:- Theory, Applications and Research Needs”, **J. Braz. Society Mech. Sciences, RBCM**, V.20, no.2, pp.179-200, 1998. ISSN: 01007386
162. Cotta, R.M., “Improved Lumped-Differential Formulations in Heat Transfer”, Invited Chapter, **Volume 2 - Modelling of Engineering Heat Transfer Phenomena, Chap.10**, Eds. B.Sunden & M. Faghri, Heat Transfer Series, Computational Mechanics Publ., pp.293-325 UK, 1998. ISBN 13:9781853124501
163. Leal, M.A. and R.M.Cotta, “Steady and Transient Integral Transform Solutions of Natural Convection in Enclosures”, Proc. of the **ICHMT Int. Symp. on Computational Heat Transfer**, pp.418-432, Begell House Inc., Turkey, May 1997. doi: 10.1615/ICHMT.1997.IntSymLiqTwoPhaseFlowTranspPhenCHT.480
164. Quaresma, J.N.N. and R. M. Cotta, “Integral Transform Method for the Navier-Stokes Equations in Steady Three-Dimensional Flow”, Proc. of the **10th ISTP - Int. Symp. on Transport Phenomena**, Ed. K. Suzuki, pp.281-287, Kyoto, Japan, November, 1997.
165. Pimentel, L.C.G., R.M.Cotta, and S. Kakaç, “Integral Transform Solution of the Turbulent Boundary Layer Equations in Streamfunction-Only Formulation”, Proc. of the **ICHMT Int. Symp. on Computational Heat Transfer**, pp.224-231, Begell House Inc., Turkey, May 1997.
doi: 10.1615/ICHMT.1997.IntSymLiqTwoPhaseFlowTranspPhenCHT.240
166. Bolivar, M.A.H., P.L.C. Lage, and R.M. Cotta, “Integral Transform Solution of the Laminar Thermal Boundary Layer Problem for Flow Past Two-Dimensional and Axisymmetric Bodies”, **Num. Heat Transfer, Part A - Applications**, V.33, no.7, pp.779-797, 1998. doi: 10.1080/10407789808913966

167. Dantas, L.B., H.R.B.Orlande, R.M.Cotta, and M.D.Mikhailov, “An Integral Transform Solution for the Heat Conduction Problem in Plastic Encapsulated Chips”, **Proc. of the 14th Brazilian Congress of Mechanical Engineering, XIV COBEM, Paper #COB299**, V.1, pp.1-8, Baurú, São Paulo, Brasil, December 1997 https://abcm.org.br/anais/cobem/1997/cobem-97-vol_1.pdf.
168. Romani, Z.V., R.M.Cotta, J.S.Perez-Guerrero, and P.F.L.Heilbron Filho, “Analysis of Radioactive Waste Contamination in Soils. Part I:- Integral Transform Solutions”, **Proc. of the Int. Conf. on the Radiological Accident of Goiânia - 10 Years Later**, 12p., Goiânia, Brazil, October 1997 (CD-ROM). https://inis.iaea.org/search/search.aspx?orig_q=RN:29061535
<https://www.ipen.br/biblioteca/cd/go10anosdep/Cnen/doc/manu50.PDF>
169. Souza, R., L.M.Pereira, H.R.B.Orlande, and R.M.Cotta, “Analysis of Radioactive Waste Contamination in Soils. Part III:- Estimation of Apparent Diffusion Coefficient”, **Proc. of the Int. Conf. on the Radiological Accident of Goiânia - 10 Years Later**, 11 p., Goiânia, Brazil, October 1997(CD-ROM).
170. Cotta, R.M., M.D.Mikhailov, and N.J.Ruperti Jr., “Analysis of Radioactive Waste Contamination in Soils:- Solution Via Symbolic Manipulation”, **Proc. of the Int. Conf. on the Radiological Accident of Goiânia - 10 Years Later**, 9p., Goiânia, Brazil, October 1997; also, **IAEA Conference Proceedings Series**, Viena, IAEA-GOCP, pp.298-308, 1998. https://inis.iaea.org/collection/NCLCollectionStore/_Public/30/008/30008079.pdf?r=1&r=1
171. Leal, M.A., N.J.Ruperti Jr., and R.M.Cotta, “A Two-Dimensional Model for the Analysis of Radioactive Waste Contamination in Soils:- The Integral Transform Method”, **Proc. of the Int. Conf. on the Radiological Accident of Goiânia - 10 Years Later**, 9p., Goiânia, Brazil, October 1997 (CD-ROM).
172. Medeiros, M.J., C.A.C. Santos, R.M. Cotta, and S. Kakaç, “Análise Teórica do Campo Hidrodinâmico no.Escoamento Laminar em Dutos Circulares”, **Proc. of the 5th North-Northeast Brazilian Congress of Mechanical Engineering, V CNNE-EM**, V.3, pp.668-675, Fortaleza, Ceará, Brasil, October 1998.
173. Mikhailov, M.D. and R.M.Cotta, “Heat Conduction with Non-linear Boundary Conditions:- Hybrid Solutions Via Integral Transforms and Symbolic Computation”, **Proc. of the 11th Int. Heat Transfer Conf.**, V.7, pp.77-81, Seoul, Korea, August 1998. ISSN: 2377-424X (online); doi: 10.1615/ihtc11.760
174. Machado, H.A. and R.M. Cotta, “Integral Transform Computation of Compressible Boundary Layers”, **Hybrid Meth. Eng.**, V.1, no.2, pp.139-160, 1999. doi: 10.1615/HybMethEng.v1.i2.40
175. Cotta, R.M., “Hybrid Methods in Heat Transfer:- The Integral Transform Method”, Invited Keynote Lecture, Int. Conf. Advanced Computational Methods in Heat Transfer, Heat Transfer 98, Cracow, Poland, June 1998; also, **WIT Transactions on Engineering Sciences**, V.20, pp.393-402, 1998. doi:

10.2495/HT980381

<https://www.witpress.com/Secure/elibrary/papers/HT98/HT98038FU.pdf>

176. Macedo, E.N., R.M. Cotta, and H.R.B. Orlande, “Local-Instantaneous Filtering in the Integral Transform Solution of Nonlinear Diffusion Problems”, **Computational Mechanics**, V.23, pp.524-532, 1999. doi: 10.1007/s004660050432
177. Cotta, R.M., “Hybrid Methods:- The Generalized Integral Transform Technique”, Invited Paper, **Ciencia & Natura**, Special Issue, pp.9-54, 2000. <https://periodicos.ufsm.br/cienciaenatura/article/view/37366/20059>; doi:10.5902/2179460X37366
178. Perez Guerrero, J.S., J.N.N. Quaresma, and R.M. Cotta, “Simulation of Laminar Flow Inside Ducts of Irregular Geometry Using Integral Transforms”, **Computational Mechanics**, V.25, no.4, pp.413-420, 2000. doi: 10.1007/s004660050488
179. Santos, C.A.C., M.J. Medeiros, R.M. Cotta, and S. Kakaç, “Theoretical Analysis of Transient Laminar Forced Convection in Simultaneous Developing Flow in Parallel-Plate Channel”, **7th AIAA/ASME Joint Thermophysics and Heat Transfer Conference, AIAA Paper #97-2678**, 10p., Albuquerque, New Mexico, June, 1998.
180. Cheroto, S., M.D. Mikhailov, S. Kakaç, and R.M. Cotta, “Periodic Laminar Forced Convection:- Solution via Symbolic Computation and Integral Transforms”, **Int. J. Thermal Sciences – Revue Generale de Thermique**, V.38, no.7, pp.613-621, 1999. doi: 10.1016/S0035-3159(99)80041-5
181. Thum, R.L., L.B. Barichello, M.T. Vilhena, and R.M. Cotta, “Solução do Problema de Luikov pelo Método Espectral e Transformada de Laplace”, **Proc. of the 7th National Thermal Sciences Meeting, ENCIT-98**, V.1, pp.43-46, Rio de Janeiro, Brasil, November 1998. http://abcm.org.br/app/webroot/anais/encit/1998/encit-98-vol_01.pdf
182. Guigon, S.M., L.B. Dantas, F. Scofano Neto, and R.M. Cotta, “Exact Solution of Luikov’s Equations for Drying in Capillary Porous Media”, **Hybrid Meth. Eng.**, V.1, no.4, pp.365-387, 1999. doi: 10.1615/HybMethEng.v1.i4.40
183. Macedo, E.N., R.M. Cotta, and H.R.B. Orlande, “A Solution Via Generalized Integral Transform Technique for the Simultaneous Transport Processes During Combustion of Wood Cylinders”, **Int. J. Num. Meth. Eng.**, V.49, pp.1455-1477, 2000. doi: 10.1002/1097-0207(20001220)49:11<1455::AID-NME999>3.0.CO;2-8
184. Rupert Jr., N.J., D. Gobin, and R.M. Cotta, “Covalidation of Integral Transform and Finite Volume Solutions in Phase-Change Problems”, **Proc. of the 7th National Thermal Sciences Meeting, ENCIT-98**, V.2, pp.659-668, Rio de Janeiro, Brasil, November 1998. <http://abcm.org.br/app/webroot/anais/encit/1998/encit-98-vol-02.pdf>

185. Machado, H.A., and R.M. Cotta, “Analysis of Internal Convection with Variable Physical Properties Via Integral Transformation”, **Num. Heat Transfer – Part A: Applications**, V.36, no.7, pp.699-724, 1999. doi: 10.1080/104077899274525
186. Pereira, L.M., R. Souza, H.R.B. Orlande, and R.M. Cotta, “Problema Inverso para Estimativa do Coeficiente Aparente de Difusão de Massa”, **XXVI Congresso Brasileiro de Sistemas Particulados, XXVI ENEMP**, V.1, pp.113-120, Teresópolis, RJ, Brazil, October 1998.
187. Cotta, R.M., “The Generalized Integral Transform Technique”, In: Cotta, R.M., **The Integral Transform Method in Thermal-Fluid Sciences and Engineering**, Part I – Fundamentals, pp.27-54, Begell House Inc., N.Y., 1998.
188. Cotta, R.M., “Hybrid Methods in Thermal Sciences:- Problem Formulation, Solution Methodology, Mixed Computations”, Invited Keynote Lecture, **7th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 98**, Rio de Janeiro, Brazil, November 1998.
http://abcm.org.br/app/webroot/anais/encit/1998/encit-98-vol_01.pdf
189. Machado, H.A., M.A. Leal, and R.M. Cotta, “A Flexible Algorithm for Transient Thermal Convection Problems Via Integral Transforms”, Proc. of the **Int. Symp. on Computational Heat and Mass Transfer**, Keynote Lecture, pp.13-31, North Cyprus, Turkey, April 1999.
190. Ramos, R., J.S. Perez Guerrero, and R.M. Cotta, “Stratified Flow Over a Backward Facing Step:- Hybrid Solution by Integral Transforms”, **Int. J. Num. Meth. in Fluids**, V.35, no.2, pp.173-197, 2001.
doi: 10.1002/1097-0363(20010130)35:2<173::AID-FLD88>3.0.CO;2-U
191. Pereira, L.M., R. de Souza, H.R.B. Orlande, and R.M. Cotta, “Estimation of the Apparent Mass Diffusion Coefficient by Using Inverse Analysis and Radiation Measurement Techniques”, Paper # HT-13, Inverse Problems in Engineering: Theory and Practice, Proc. of **3rd ICIPE, Third International Conference on Inverse Problems in Engineering**, 8pp., Washington, USA, June 13th-18th, 1999.
<http://inverseproblems.org/1999%20ICIPE/FinalPapers/ht13.pdf>
192. Mikhailov, M.D. and R.M. Cotta, “Convergence Acceleration of Integral Transform Solutions”, **Hybr. Meth. Eng.**, V.3, no.1, pp.89-94, 2001. doi: 10.1615/HybMethEng.v3.i1.70
193. Pereira, L.M., R.M. Cotta, and J.S. Perez Guerrero, “Analysis of Laminar Forced Convection in Annular Ducts Using Integral Transforms”, **Proc. of the 15th Brazilian Congress of Mechanical Engineering, COBEM 99**, Paper # AACJHH, pp.1-10, Águas de Lindóia, São Paulo, Brasil, December 1999
<http://abcm.org.br/app/webroot/anais/cobem/1999/pdf/aacjhh.pdf>
194. Santana, L.F.M., R.M. Cotta, and L.C.G. Pimentel, “Hybrid Approach for Fully Transient Turbulent Forced Convection Inside Smooth Parallel-Plate Channels”, **Proc. of the 15th Brazilian Congress of Mechanical Engineering, COBEM 99**,

- Paper # AAADIJ, pp.1-10, Águas de Lindóia, São Paulo, Brasil, December 1999.
<http://abcm.org.br/app/webroot/anais/cobem/1999/pdf/aaadij.pdf>
195. Dantas, L.B., H.R.B. Orlande, R.M. Cotta, R. Souza, and P.D.C. Lobo, “Inverse Analysis of Drying in Capillary Porous Media”, **Proc. of the 15th Brazilian Congress of Mechanical Engineering, COBEM 99**, Paper # AAAGGD, pp.1-10, Águas de Lindóia, São Paulo, Brasil, December 1999.
<http://abcm.org.br/app/webroot/anais/cobem/1999/pdf/aaaggd.pdf>
 196. Regis, C.R., R.M. Cotta, and Jian Su, “Improved Lumped Analysis of Transient Heat Conduction in a Nuclear Fuel Rod”, **Int. Comm. Heat & Mass Transfer**, V.27, no.3, pp.357-366, 2000. doi: 10.1016/S0735-1933(00)00116-0
 197. Alves, L.S.B. and R.M. Cotta, “Transient Natural Convection Inside Porous Cavities:- Hybrid Numerical-Analytical Solution and Mixed Symbolic-Numerical Computation”, **Num. Heat Transfer, part A - Applications**, V. 38, no.1, pp.89-110, 2000. doi: 10.1080/10407780050134983
 198. Leal, M.A., H.A. Machado, and R.M. Cotta, “Integral Transform Solutions of Transient Natural Convection in Enclosures with Variable Fluid Properties”, **Int. J. Heat & Mass Transfer**, V.43, no.21, pp.3977-3990, 2000. doi: 10.1016/S0017-9310(00)00023-5
 199. Pereira, L.M., R.M. Cotta, and J.S. Perez Guerrero, “Analysis of Laminar Forced Convection in Annular Ducts Using Integral Transforms”, **Hybrid Meth. Eng.**, V.2, no.2, pp.221-232, 2000. doi: 10.1615/HybMethEng.v2.i2.70
 200. Quaresma, J.N.N., E.N. Macêdo, and R.M. Cotta, “Convective Heat Transfer of Non-Newtonian Fluids in Channels:- Reference Results Through Integral Transforms”, **Trends in Heat, Mass & Momentum Transfer**, V.7, pp.43-64, 2001.
<http://www.researchtrends.net/tia/abstract.asp?in=0&vn=7&tid=4&aid=881&pub=2001&type=3>; ISSN: 0973-2446
 201. Pereira, L.M., R. Souza, H.R.B. Orlande, and R.M. Cotta, “Comparação de Métodos de Medida de Concentração para a Estimativa do Coeficiente Aparente de Difusão”, **XXVII Congresso Brasileiro de Sistemas Particulados, XXVII ENEMP**, Campos do Jordão, SP, Brazil, October 1999.
 202. Sphaier, L.A. and R. M. Cotta, “Integral Transform Analysis of Multidimensional Eigenvalue Problems Within Irregular Domains”, **Numerical Heat Transfer, Part B-Fundamentals**, V.38, pp.157-175, 2000. doi: 10.1080/104077900750034652
 203. Dantas, L.B., H.R.B. Orlande, R.M. Cotta, R. Souza, and P.D.C. Lobo, “Estimativa de Parâmetros nas Equações de Luikov com a Utilização de Medidas de Temperatura ou Umidade”, **XXVII Congresso Brasileiro de Sistemas Particulados, XXVII ENEMP**, Campos do Jordão, SP, Brazil, October 1999.
 204. Dantas, L.B., H.R.B. Orlande, R.M. Cotta, R. Souza, and P.D.C. Lobo, “Parameter Estimation in Moist Capillary Porous Media by Using Temperature

- Measurements”, **Int. Symposium on Inverse Problems in Engineering Mechanics, ISIP 2000**, Eds. M. Tanaka & G. S. Dulikravich, pp.53-62, Nagano, Japan, March 2000. doi: 10.1016/b978-008043693-7/50078-7
205. Alves, L.S.B., L.A. Sphaier, and R.M. Cotta, “Error Analysis of Mixed Lumped-Differential Formulations in Diffusion Problems”, **Hybrid Meth. Eng.**, V.2, no.4, pp.409-435, 2000. doi: 10.1615/HybMethEng.v2.i4.40
206. Alves, L.S.B., R.M. Cotta, and M.D. Mikhailov, “Covalidation of Hybrid Integral Transforms and Method of Lines in Nonlinear Convection-Diffusion with *Mathematica*”, **J. Braz. Soc. Mechanical Sciences, RBCM**, V.23, no.3, pp.303-320, 2001. ISSN: 01007386; doi: 10.1590/S0100-73862001000300004
207. Gondim, R. R. and R. M. Cotta, “Convecção Interna Transiente com Difusão Axial:- Solução Via Transformação Integral e Filtro em Regime Permanente”, **CONEM-2000, National Congress of Mechanical Engineering**, pp.325-333, Natal, Brazil, August 2000.
<https://www.ipen.br/biblioteca/cd/conem/2000/MC9386.pdf>
<https://abcm.org.br/app/webroot/anais/conem/2000/termodinamica.pdf>
208. Dantas, L. B., H. B. Orlande, and R. M. Cotta, “A Coupled Integral Equations Approach for the Analysis of Drying in Two-Dimensional Capillary Porous Media”, **8th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2000**, Porto Alegre, Brazil, October 2000.
<http://abcm.org.br/app/webroot/anais/encit/2000/arquivos/s13/s13p34.pdf>
209. Gondim, R. R., and R. M. Cotta, “Hybrid Solution for Transient Convection in Channels with Axial Diffusion Via Integral Transforms and Transient Filtering”, **8th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2000**, Porto Alegre, Brazil, October 2000.
<http://abcm.org.br/app/webroot/anais/encit/2000/arquivos/s12/s12p13.pdf>
210. Pereira, L. M., R. M. Cotta, and J. S. Perez Guerrero “Forced and Natural Convection in Annular Concentric Channels and Cavities by Integral Transforms”, **8th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2000**, Porto Alegre, Brazil, October 2000.
<http://abcm.org.br/app/webroot/anais/encit/2000/arquivos/s06/s06p37.pdf>
211. Pazos, R.P., M.T. Vilhena, and R. M. Cotta, “Convergence of the GITT Approximations in Heat Transfer and Fluid Mechanics Problems”, **8th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2000**, Porto Alegre, Brazil, October 2000.
<http://abcm.org.br/app/webroot/anais/encit/2000/arquivos/s13/s13p09.pdf>
212. Ruperti Jr., N. J., and R. M. Cotta, “An Improved Lumped Differential Approach for the Solution of Thermal Ablation Problems”, **8th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2000**, Porto Alegre, Brazil, October 2000. <http://abcm.org.br/app/webroot/anais/encit/2000/arquivos/s27/s27p01.pdf>

213. Jian Su and R. M. Cotta, "Higher Order Lumped Analysis of Transient Heat Transfer in a Nuclear Fuel Rod", **8th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2000**, 10p., Porto Alegre, Brazil, October 2000. <http://abcm.org.br/app/webroot/anais/encit/2000/arquivos/s12/s12p14.pdf>
214. Jian Su and R. M. Cotta, "Simulation of Nonlinear Dynamics of Pressurized Water Reactor:- An Improved Lumped Parameter Formulation for Fuel Heat Transfer", **8th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2000**, 9p., Porto Alegre, Brazil, October 2000. <http://abcm.org.br/app/webroot/anais/encit/2000/arquivos/s32/s32p04.pdf>
215. Pontedeiro, E.M., P.L. Heilbron, R.M. Cotta, J.P.S. Guerrero, and N.J. Ruperti Jr., "Screening model based on the solution of the transport equation for the preliminary assessment of a near surface repository", International Atomic Energy Agency, **International Conference on the Safety of Radioactive Waste Management**, IAEA-CN-78/63, pp. 261-264, Córdoba, Espanha, March 2000. also, IAEA/INIS, V.31, no.14, Ref.# 31016247, 2000. https://inis.iaea.org/collection/NCLCollectionStore/_Public/31/016/31016247.pdf?r=1&r=1
216. Pereira, L. M., J.S. Perez-Guerrero, N. Brazão, and R. M. Cotta, "Compressible Flow and Heat Transfer in Ultracentrifuges:- Hybrid Analysis via Integral Transforms", **Int. J. Heat & Mass Transfer**, V.45, no.1, pp.99-112, 2002. doi: 10.1016/S0017-9310(01)00122-3
217. Jian Su and R. M. Cotta, "Improved Lumped Parameter Formulation for Simplified LWR Thermohydraulic Analysis", **Annals of Nuclear Energy**, V.28, pp.1019-1031, 2001. doi: 10.1016/S0306-4549(00)00104-3
218. Dantas, L. B., H. R. B. Orlande, and R. M. Cotta, "Estimation of Dimensionless Parameters of Luikov's System for Heat and Mass Transfer in Capillary Porous Media", **Int. J. Thermal Sciences**, V.41, pp.217-227, 2002. doi: 10.1016/S1290-0729(01)01310-2
219. Alves, L. S. B., R. M. Cotta, and J. Pontes, "Stability Analysis of Natural Convection in Porous Cavities Through Integral Transforms", **Int. J. Heat & Mass Transfer**, V.45, pp.1185-1195, 2002. doi: 10.1016/S0017-9310(01)00231-9
220. Sphaier, L. A. and R. M. Cotta, "Analytical and Hybrid Solutions of Diffusion Problems within Arbitrarily Shaped Regions via Integral Transforms", **Computational Mechanics**, V.29, no.3, pp.265-276, 2002. doi: 10.1007/s00466-002-0339-6
221. Dantas, L. B., H. R. B. Orlande, and R. M. Cotta, "Effects of Lateral Heat Losses on the Parameter Estimation Problem in Moist Capillary Porous Media", **Int. Symposium on Inverse Problems in Engineering Mechanics, ISIP 2001**, Nagano, Japan, pp.13-22, February 2001. doi: 10.1016/b978-008043951-8/50005-9

222. Pereira, L.M., R. De Souza, H.R.B. Orlande, and R. M. Cotta, "A Comparison of Concentration Measurement Techniques for the Estimation of the Apparent Mass Diffusion Coefficient", **Braz. Journal of Chemical Engineering**, V.18, no.3, pp.253-265, 2001. ISSN: 0104--6632 doi: 10.1590/S0104-66322001000300005
223. Alves, L. S. B., H. Luz Neto, and R. M. Cotta, "Parametric Analysis of the Streamfunction Time Derivative in the Darcy-flow Model for Transient Natural Convection", **2nd International Conference on Computational Heat and Mass Transfer, CHMT-2001**, Vol.2, pp.46-54, Editora E-Papers, Rio de Janeiro, Brazil, October 2001. ISBN: 85-87922-44-0
https://www.academia.edu/12012122/PARAMETRIC_ANALYSIS_OF_THE_STREAM_FUNCTION_TIME_DERIVATIVE_IN_THE_DARCY-FLOW_MODEL_FOR_TRANSIENT_NATURAL_CONVECTION
224. Thum, R.L., L.B. Barichello, M.T. Vilhena, and R.M. Cotta, "An Analytical Approach to the Solution of Multidimensional Drying Problems", **2nd International Conference on Computational Heat and Mass Transfer, CHMT-2001**, Rio de Janeiro, Brazil, October 2001. ISBN: 85-87922-44-0
225. Luz Neto, H., J.N.N. Quaresma, and R.M. Cotta, "Integral Transform Algorithm for Heat and Fluid Flow in Three-Dimensional Porous Media", **2nd International Conference on Computational Heat and Mass Transfer, CHMT-2001**, Rio de Janeiro, Brazil, October 2001. ISBN: 85-87922-44-0
https://www.academia.edu/11939971/INTEGRAL_TRANSFORM_ALGORITHM_FOR_HEAT_AND_FLUID_FLOW_IN_THREE_DIMENSIONAL_POROUS_MEDIA
226. Kakaç, S., C.A.C. Santos, M.R. Avelino, and R. M. Cotta, "Computational Solutions and Experimental Analysis of Transient Forced Convection in Ducts", Invited Paper, **Int. J. of Transport Phenomena**, V.3, no.4, pp.301-317, 2001. ISSN: 1028-6578
227. Pereira, L. M., J. S. Perez Guerrero, and R. M. Cotta, "Study of Buoyancy Effects Inside Vertical Concentric Annular Cavities by Integral Transforms", **Proc. of the 16th Brazilian Congress of Mechanical Engineering, COBEM 2001**, Paper # TRB 1493, pp.348-357, Uberlândia, MG, Brasil, November 2001. ISBN 85-85769-06-6 <https://abcm.org.br/anais/cobem/2001/home.htm>
228. Rocha, G. C., R. Ramos, L. A. Sphaier, and R. M. Cotta, "Transformação Integral na Otimização de Aletas Longitudinais de Perfil Variável", **Proc. of the 16th Brazilian Congress of Mechanical Engineering, COBEM 2001**, Paper # TRB 2368, pp.483-492, Uberlândia, MG, Brasil, November 2001. ISBN 85-85769-06-6
<https://abcm.org.br/anais/cobem/2001/home.htm>
229. Thum, R.L., L.B. Barichello, M.T. Vilhena, and R.M. Cotta, "An Analytical Approach to the Solution of Multidimensional Drying Problems", **Hybrid Methods Eng.**, Special Issue, Vol.3, no.2&3, pp. 239-255, 2001. doi: 10.1615/HybMethEng.v3.i2-3.90

230. Cotta, R. M., C. V. Falkenberg, N. J. Ruperti Jr., and Su Jian, “Thermal Protection System Simulation for Atmospheric Reentry: - Engineering Models”, **2nd Workshop on Research and Applications with *Mathematica*, II WARM**, in: **2nd International Conference on Computational Heat and Mass Transfer, CHMT-2001**, Rio de Janeiro, Brazil, October 2001(CD-Rom).
231. Cotta, R.M., L.M. Pereira, J.S. Pérez Guerrero, N. Brazão, “Separative Performance of Ultracentrifuges:- Simplified Analysis & Optimization”, **2nd Workshop on Research and Applications with *Mathematica*, II WARM**, in: **2nd International Conference on Computational Heat and Mass Transfer, CHMT-2001**, Rio de Janeiro, Brazil, October 2001(CD-Rom).
232. Cotta, R.M., H. Luz Neto, L.S. de B. Alves, and J.N.N. Quaresma, “Integral Transforms for Heat and Fluid Flow in Two- and Three-Dimensional Porous Media”, **Hybrid Meth. Eng.**, vol.3, no.4, pp.395-408, 2001. doi: 10.1615/HybMethEng.v3.i4.60
233. Luz Neto, H., J.N.N. Quaresma, and R.M. Cotta, “Natural Convection in Three-Dimensional Porous Cavities:- Integral Transform Method”, **Int. J. Heat & Mass Transfer**, V.45, no.14, pp.3013-3032, 2002. doi: 10.1016/s0017-9310(02)00015-7
234. Cotta, R.M., and M.D. Mikhailov, “Hybrid Approaches in Convective Heat Transfer”, in: **Convective Heat Transfer in Ducts: - The Integral Transform Approach**, eds. C.A.C. Santos, J.N.N. Quaresma, and J.A. Lima, ABCM Mechanical Sciences Series, Editora E-Papers, Rio de Janeiro, Part 1, Chapter II, pp.17-38, 2001. ISBN 85-87922-23-8
235. Dantas, L. B., H. R. B. Orlande, and R. M. Cotta, “An Inverse Problem of Parameter Estimation for Heat and Mass Transfer in Capillary Porous Media”, **Int. J. Heat & Mass Transfer**, V.46, no.9, pp.1587-1598, 2003. doi: 10.1016/S0017-9310(02)00424-6
236. Cotta, R. M. and H.R.B. Orlande, “Hybrid Approaches in Heat and Mass Transfer:- A Brazilian Experience with Applications in National Strategic Projects”, **Heat Transfer Eng.**, Invited Editorial, V.24, no.4, pp.1-5, 2003. doi: 10.1080/01457630304026
237. Santos, C.A.C., R. R. Gondim, and R. M. Cotta, “Finned Channels”, in: **Convective Heat Transfer in Ducts: - The Integral Transform Approach**, eds. C.A.C. Santos, J.N.N. Quaresma, and J.A. Lima, ABCM Mechanical Sciences Series, Editora E-Papers, Rio de Janeiro, Part 1, Chapter V, pp.81-98, 2001. ISBN 85-87922-23-8
238. Cotta, R.M., H. Luz Neto, L.S. de B. Alves, and J.N.N. Quaresma, “Integral Transforms for Heat and Fluid Flow in Two- and Three-Dimensional Porous Media”, Invited Paper, **Int. Conf. on Adv. Comp. Meth. in Heat Transfer, Heat Transfer 2002**, Greece, April, 2002; In Heat Transfer VIII, Ed. Sundén, B., Brebia, C. A. & Mendes, A., ISBN: 1-85312-705-1 ; also, WIT Transactions on Engineering Sciences, Vol.46, pp 387-397, 2004. doi: 10.2495/HT040361

<https://www.witpress.com/elibrary/wit-transactions-on-engineering-sciences/46/12602>

239. Pereira, L.M., J.S. Perez-Guerrero, and R. M. Cotta, "Free Convection Inside Horizontal Annular Concentric Channels: - Solution by Integral Transforms", **CONEM-2002, National Congress of Mechanical Engineering**, Paper # CPB0348, pp.1-10, João Pessoa, Brazil, August 2002. <https://abcm.org.br/app/webroot/anais/conem/2002/trabalhos/tema05/CPB0348.pdf>
240. Dantas, L.B., H.R.B. Orlande, and R. M. Cotta, "Solution of a Two-Dimensional Drying Problem in Cylindrical Coordinates", **CONEM-2002, National Congress of Mechanical Engineering**, Paper # CPB0448, pp.1-10, João Pessoa, Brazil, August 2002. <https://abcm.org.br/app/webroot/anais/conem/2002/trabalhos/tema07/CPB0448.pdf>
241. Sphaier, L. A. and R. M. Cotta, "Integral Transform Solutions of Diffusion and Eigenvalue Problems Within Arbitrarily Shaped Domains", **Proc. of the 12th International Heat Transfer Conference, IHTC 12**, Paper no.0908, Grenoble, France, August 2002. ISSN: 2377-424X (online); doi: 10.1615/ihtc12.160
242. Nogueira, E., L. B. Dantas, and R. M. Cotta, "Analysis of Interfacial Effects on Heat Transfer in a Gas-Liquid Descending Vertical Annular Two-Phase Flow", **CONEM-2002, National Congress of Mechanical Engineering**, Paper # CPB1213, pp.1-10, João Pessoa, Brazil, August 2002. <https://abcm.org.br/app/webroot/anais/conem/2002/trabalhos/tema07/CPB1213.pdf>
243. Cotta, R.M., M.D. Mikhailov, and M.J. Unga, "Hybrid Solutions for Contaminant Transport in Fractured Porous Media", **Hybrid Meth. Eng.**, Vol.4, nos.1&2, pp. 61-88, 2002. doi: 10.1615/HybMethEng.v4.i1-2.40
244. Nogueira, E., L. B. Dantas, and R. M. Cotta, "Heat Transfer in Liquid-Liquid Annular Two-Phase Flow in a Vertical Duct", **9th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2002**, Paper # CIT02-0694, Caxambú, Brazil, October 2002. <http://abcm.org.br/app/webroot/anais/encit/2002/Paper-title/02/CIT02-0694.pdf>
245. Heilbron, P.F.L., E.M. Pontedeiro, R.M. Cotta, J.S. Pérez-Guerrero, and N.J. Ruperti, "**Reassessment of the Safety of the Goiânia Repositories**", Technical Report, Comissão Nacional de Energia Nuclear, CNEN, Rio de Janeiro, Brazil, 2002. <http://www.crcn-co.cnen.gov.br/documentos/ana-seg-repo-1995-2002.pdf>
246. Heilbron Filho, P.F.L., J.S. Perez-Guerrero, E.M. Pontedeiro, N. Ruperti Jr., and R.M. Cotta, "Analytical Model for Environmental Impact Due to Solid Waste Disposal from Electricity Generation", **Hybrid Meth. Eng.**, Vol.4, nos.1&2, pp. 1-26, 2002. doi: 10.1615/HybMethEng.v4.i1-2.10

247. Cotta, R.M., M.J. Unga, and M.D. Mikhailov, "Contaminant Transport in Finite Fractured Porous Medium: Integral Transforms and Lumped-Differential Formulations", **Annals of Nuclear Energy**, V.30, no.3, pp.261-285, 2003. doi: 10.1016/S0306-4549(02)00060-9
248. Cotta, R.M., N. Ruperti Jr., C. V. Falkenberg, and Jian Su, "Engineering Analysis of Ablative Thermal Protection for Atmospheric Reentry:- Improved Lumped Formulations and Symbolic-Numerical Computation", **Heat Transfer Eng.**, Vol.25, no.6, pp.1-12, 2004. doi: 10.1080/01457630490486319
249. Nogueira, E., L. B. Dantas, and R. M. Cotta, "Heat Transfer in Liquid-Liquid Annular Two-Phase Flow in a Vertical Duct", **Hybrid Meth. Eng.**, Vol.4, no.3, 2002. ISSN:1099-2391
250. Almeida, G. L., L.C.G. Pimentel, and R. M. Cotta, "Analysis of Pollutants Atmospheric Dispersion from a Point Source Using Integral Transforms", in: **3rd International Conference on Computational Heat and Mass Transfer, CHMT-2003**, Paper # 26, pp.1-10, Banff, Canada, May 2003(CD-Rom).
251. Cotta, R.M., M.J. Unga, M.D. Mikhailov, H.R.B. Orlande, and P.F.L. Heilbron, "Hybrid Methods and Mixed Computations for Contaminant Transport in Environmental Modeling", in: **3rd International Conference on Computational Heat and Mass Transfer, CHMT-2003**, Invited Keynote Lecture, Paper # 27, pp.1-10, Banff, Canada, May 2003(CD-Rom).
252. Ivantcheva, Zv. M., R.M. Cotta, and M.D. Mikhailov, "Symbolic Computation of Correction Function for Polynomial Time Response of Intrinsic Thermocouples", **Int. Comm. Heat & Mass Transfer**, V. 31, no. 8 , pp. 1133-1141, 2004. doi: 10.1016/j.icheatmasstransfer.2004.08.011
253. Moreira, P.H.S., F.P. Jorge de Barros, H.R.B. Orlande, and R.M. Cotta, "Inverse Analysis in Mass Diffusion with Electrical Conductivity Measurements", **International Conference of the Brazilian Society of Mechanical Sciences, COBEM-2003**, Paper # COB03-1871, pp.1-8, São Paulo, Brazil, November 2003. <https://abcm.org.br/anais/cobem/2003/html/pdf/COB03-1871.pdf>
254. Barros, F.P.J., R.M. Cotta, and E.M. Pontedeiro, "Analysis of Contaminants Dispersion in Rivers and Streams: Integral Transforms and Numerical-Symbolic Implementation", **26th National Congress of Applied and Computational Mathematics, CNMAC-SBMAC**, S. José do Rio Preto, SP, September 2003.
255. Rocha, G.C.C., M.D. Mikhailov, and R.M. Cotta, "Symbolic Computation for Multidimensional Models of Contaminants Dispersion", **26th National Congress of Applied and Computational Mathematics, CNMAC-SBMAC**, S. José do Rio Preto, SP, September 2003.
256. Cardoso, C.R., R.M. Cotta, and M.R. Avelino, "Integral Transform Solution of Hydraulic Transients in Channels", **26th National Congress of Applied and**

Computational Mathematics, CNMAC-SBMAC, S. José do Rio Preto, SP, September 2003.

257. Couto, P., H.R.B. Orlande, R.M. Cotta, S.P. Oliveira, J.A. Cruz, P.R.F. Santos, C.S.P. Costa, and H. Massard, “Flash Method Standardization in Brazil for the Measurement of Solid Thermophysical Properties”, **Metrologia 2003, Brazilian Metrology Society, SBM**, pp.1-5, Recife, Brazil, 1st-5th September 2003. <http://metrologia.org.br/wpsite/>
258. Cotta, R.M., H.R.B. Orlande, M.D. Mikhailov, and S. Kakaç, “Experimental and Theoretical Analysis of Transient Convective Heat and Mass Transfer:- Hybrid Approaches”, **ICHMT International Symposium on Transient Convective Heat And Mass Transfer in Single and Two-Phase Flows**, Invited Keynote Lecture, pp.61-76, Cesme, Turkey, Begell House, August 17th – 22nd, 2003. https://www.researchgate.net/publication/333339723_TRANSIENT_CONVECTIVE_HEAT_AND_MASS_TRANSFER_IN_SINGLE_AND_TWO-PHASE_FLOWS_Jacques_Padet_Faruk_Arinc_Editors/link/5ce7ac10458515712ebdc26d/download
259. Gondim, R.R., R.M. Cotta, C.A.C. Santos, and M. Mat, “Internal Transient Forced Convection with Axial Diffusion: Comparison of Solutions Via Integral Transforms”, **ICHMT International Symposium on Transient Convective Heat And Mass Transfer in Single and Two-Phase Flows**, pp.397-406, Cesme, Turkey, Begell House, August 17th – 22nd, 2003. https://www.researchgate.net/publication/333339723_TRANSIENT_CONVECTIVE_HEAT_AND_MASS_TRANSFER_IN_SINGLE_AND_TWO-PHASE_FLOWS_Jacques_Padet_Faruk_Arinc_Editors/link/5ce7ac10458515712ebdc26d/download
260. Barros, F. P. J., and R.M. Cotta, “Hybrid Solutions for Contaminants Dispersion in Rivers: Application to Biocides Contamination from Hydroelectric Power Plants”, Proc. of the **VI EMC-Encontro de Modelagem Computacional**, pp.1-10, IPRJ-UERJ, Nova Friburgo-RJ, December 1-3, 2003. ISBN: 85-903068-2-8
261. Cardoso, C.R., and R.M. Cotta, “Transient Slip Flow in Microchannels via Integral Transforms”, Proc. of the **VI EMC-Encontro de Modelagem Computacional**, pp.1-10, IPRJ-UERJ, Nova Friburgo-RJ, December 1-3, 2003. ISBN: 85-903068-2-8
262. Cotta, R.M., “Computational Modeling Opportunities in Environmental Mechanics: Hybrid Approaches and Mixed Computations”, Invited Lecture, Proc. of the **VI EMC-Encontro de Modelagem Computacional**, pp.1-10, IPRJ-UERJ, Nova Friburgo-RJ, December 1-3, 2003. ISBN: 85-903068-2-8
263. Leal, G.C.R., R.M. Cotta, and M.J. Unga, “Symbolic Computation of Multidimensional Contaminants Dispersion in Porous Media with Time-Varying Flow”, Proc. of the **VI EMC-Encontro de Modelagem Computacional**, pp.1-8, IPRJ-UERJ, Nova Friburgo-RJ, December 1-3, 2003. ISBN: 85-903068-2-8

264. Stilpen, D.V.S., and R.M. Cotta, "Computação Simbólica-Numérica de Soluções Aproximadas das Equações de Camada Limite para Convecção Externa", Proc. of the **VI EMC-Encontro de Modelagem Computacional**, pp.1-13, IPRJ-UERJ, Nova Friburgo-RJ, December 1-3, 2003. ISBN: 85-903068-2-8
265. Moreira, P.H.S., F.P. Jorge de Barros, H.R.B. Orlande, and R.M. Cotta, "Validation of Inverse Analysis in Determining Mass Diffusion Coefficients in Porous Media", Proc. of the **VI EMC-Encontro de Modelagem Computacional**, pp.1-10, IPRJ-UERJ, Nova Friburgo-RJ, December 1-3, 2003. ISBN: 85-903068-2-8
266. Almeida, G.L., L.C.G. Pimentel, and R.M. Cotta, "On the Oscillation Affecting Filtered Partial Differential Formulations Handled with the Generalized Integral Transform Technique - GITT", **Technical Report, IEN/CNEN, RT-IEN-09/2003**, 16p., Dec. 2003.
267. Ladwig, K., M. Unger, and R.M. Cotta, "Improvements on the MYGRT Groundwater Transport Code", **EPRI Technical Update no.1005277**, pp.1-7, December 2003.
268. Cotta, R.M., and M.D. Mikhailov, "Hybrid Methods and Symbolic Computations", in: **Handbook of Numerical Heat Transfer**, 2nd edition, Chapter 16, Eds. W.J. Minkowycz, E.M. Sparrow, and J.Y. Murthy, John Wiley, New York, pp.493-522, 2006. ISBN: 9780471348788; doi: 10.1002/9780470172599.ch16
269. Mikhailov, M.D., and R.M. Cotta, "Mixed Symbolic-Numerical Computation of Convective Heat Transfer with Slip Flow in Microchannels", **Int. Comm. Heat & Mass Transfer**, Vol. 32, Issues 3-4 , pp. 341-348, February 2005. doi: 10.1016/j.icheatmasstransfer.2004.04.030
270. Luz Neto, H., J.N.N. Quaresma, and R.M. Cotta, "Transient Natural Convection in Three-Dimensional Rectangular Porous Cavities: Reference Results via Integral Transforms", Proc. of the **International Conference on Applications in Porous Media**, ICAPM2004, A. H. Reis & A. F. Miguel (eds.), pp. 165-172. 2004. GCE-UE, Évora, Portugal, 24-27 May, 2004. ISBN 972-9098-36-0 https://www.academia.edu/11939845/Transient_natural_convectionin_3-D_rectangular_porous_cavities_Reference_results_via_integral_Transforms?auto=download
271. Pontedeiro, A. C., R. M. Cotta, and J. Su, "Improved Lumped Model for a Transient Heat Conduction in a Heat Generating Cylinder with Temperature-Dependent Thermophysical Properties", **ASME Heat Transfer/Fluids Engineering Summer Conference**, Paper No: HT-FED2004- 56051, Vol.4, pp.37-42, Charlotte- North Carolina/USA, 11-15 July, 2004. doi: 10.1115/ht-fed2004-56051
272. Nogueira, E., L.B. Dantas, and R.M. Cotta, "Analysis of Interfacial and Mass Transfer Effects on Forced Convection in Gas-Liquid Annular Two-Phase Flow", **Thermal Engineering (RETERM)**, ABCM, no.5, pp.45-51, June 2004. ISSN: 1676-1790; doi: 10.5380/reterm.v3i1.3483

273. Almeida, G.L., R.M. Cotta, and L.C.G. Pimentel, "An Enhanced Shanks Transformation Applied to GITT Solution", **Technical Report, IEN/CNEN, RT-IEN-03/2004**, 11p., Nov. 2004.
274. Luz Neto, H., J.N.N. Quaresma, and R.M. Cotta, "Integral Transform Solution for Transient Natural Convection in Three-Dimensional Porous Cavities: Aspect Ratio Effects", **Int. J. Heat and Mass Transfer**, V.49, pp.4687-4695, 2006. doi: 10.1016/j.ijheatmasstransfer.2006.04.028
275. de Barros, F.P.J., W.B. Mills, and R.M. Cotta, "Integral Transform Solution of Two-Dimensional Model for Contaminants Dispersion in Rivers and Channels with Spatially Variable Coefficients", **Environmental Modeling & Software**, V.21, pp.699-709, 2006. doi: 10.1016/j.envsoft.2005.02.002
276. Gondim, R.R., E.N. Macedo, and R.M. Cotta, "Hybrid Solution for Transient Internal Convection with Axial Diffusion: Integral Transforms with Local Instantaneous Filtering", **Int. J. Num. Meth. Heat & Fluid Flow**, V.17, no.4, pp.405-417, 2007. doi: 10.1108/09615530710739176
277. Lima, G.G.C., C.A.C. Santos, A. Haag, and R.M. Cotta, "Integral Transform Solution of Internal Flow Problems Based on Navier-Stokes Equations and Primitive Variables Formulation", **Int. J. Num. Meth. Eng.**, V.69, pp.544-561, 2007. doi: 10.1002/nme.1780
278. Mota, C.A.A., M.D. Mikhailov, H.R.B. Orlande, and R.M. Cotta, "Identification of Heat Flux Imposed by an Oxyacetylene Torch", **10th AIAA/ISSMO Multidisciplinary Analysis and Optimization Conference**, AIAA, Vol.2, pp.887-899, Albany, New York, August-September, 2004. ISBN: 1563477165; doi: 10.2514/6.2004-4374
279. Monteiro, E.R., E.N. Macedo, J.N.N. Quaresma, and R.M. Cotta, "A Solution Through Integral Transforms for Fully Developed Flow in Doubly Connected Ducts", **Proc. of 10th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2004**, Paper CIT04-0528, pp.1-11, Rio de Janeiro, RJ, November-December, 2004.
http://abcm.org.br/app/webroot/anais/encit/2004/artigos/symp_nummet/CIT04-0528.pdf
280. Guigon, J.M.B., J.S. Perez Guerrero, and R.M. Cotta, "Computational Optimization of Integral Transform Algorithms for the Lid-Driven Cavity Flow Problem", **Proc. of 10th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2004**, Paper CIT04-0694, pp.1-10, Rio de Janeiro, RJ, November-December, 2004.
http://abcm.org.br/app/webroot/anais/encit/2004/artigos/symp_nummet/CIT04-0694.pdf
281. Castellões, F.V., C.R. Cardoso, P.Couto, and R.M. Cotta, "Transient Analysis of Slip Flow and Heat Transfer in Microchannels", **Proc. of 10th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2004**, Paper CIT04-0640, pp.1-

- 10, Rio de Janeiro, RJ, November-December, 2004, http://abcm.org.br/app/webroot/anais/encit/2004/artigos/symp_heat/CIT04-0640.pdf
282. Massard, H., C.S.C. Pinto, P. Couto, H.R.B. Orlande, and R.M. Cotta, “Analysis of Different Flash Method Mathematical Models for the Measurement of Thermophysical Properties of Solid Materials”, **Proc. of 10th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2004**, Paper CIT04-0537, pp.1-10, Rio de Janeiro, RJ, November-December, 2004. http://abcm.org.br/app/webroot/anais/encit/2004/artigos/symp_heat/CIT04-0537.pdf
283. Nascimento, U.C.S., P.H.S. Moreira, H.R.B. Orlande, and R.M. Cotta, “Transport of Contaminants in Porous Media Columns: Direct and Inverse Analysis”, **Proc. of 10th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2004**, Paper CIT04-0131, pp.1-10, Rio de Janeiro, RJ, November-December, 2004. http://abcm.org.br/app/webroot/anais/encit/2004/artigos/symp_environ/CIT04-0131.pdf
284. Lachi, M., J. Padet, M. Rebay, and R.M. Cotta, “Numerical Solution for Transient Thermal Interaction Between a Laminar Boundary Layer Flow and a Flat Plate”, **Proc. of 10th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2004**, Paper CIT04-0129, pp.1-8, Rio de Janeiro, RJ, November-December, 2004. http://abcm.org.br/app/webroot/anais/encit/2004/artigos/symp_heat/CIT04-0129.pdf
285. Padet, J., R.M. Cotta, N.C. Chereches, and N. El-Wakil, “Internal Mixed Convection: Criteria for Transition from Natural to Forced Regime (Prescribed Wall Temperature)”, **Proc. of 10th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2004**, Paper # CIT04-0841 Rio de Janeiro, RJ, November-December, 2004. https://abcm.org.br/anais/encit/2004/artigos/symp_heat/CIT04-0841.pdf
286. Pinto, C.S.C., H. Massard, P. Couto, H.R.B. Orlande, R.M. Cotta, and M.C.R. Ambrosio, “Measurement of Thermophysical Properties of Ceramics by the Flash Method”, **METROSUL IV – 4th Congresso Latino-Americano de Metrologia**, “A Metrologia e a Competitividade no Mercado Globalizado”, Foz do Iguaçu, Paraná, November 9th-12th, 2004.
287. Cotta, R. M., H. Luz Neto, L.S. de B. Alves, and J.N.N. Quaresma, “Integral Transforms for Natural Convection in Cavities Filled with Porous Media”, in: **Transport Phenomena in Porous Media**, vol.3, Eds. D. Ingham and I. Pop, Chap.4, pp.97-119, Elsevier, UK, 2005. ISBN: 978-008044490-1; doi: 10.1016/B978-008044490-1/50008-9
288. Cotta, R.M., S. Kakaç, M.D. Mikhailov, F.V. Castellões, and C.R. Cardoso, “Transient Flow and Thermal Analysis in Microfluidics”, Invited Lecture, **NATO ASI – Advanced Study Institute on Micro-Scale Heat Transfer: Fundamentals**

and Applications in Biological and Microelectromechanical systems, pp.1-21, Çesme, Turkey, July 18-30, 2004.

289. Cotta, R.M., M.D. Mikhailov, and S. Kakaç, “Steady and Periodic Forced Convection in Micro Conduits”, Invited Lecture, **NATO ASI – Advanced Study Institute on Micro-Scale Heat Transfer: Fundamentals and Applications in Biological and Microelectromechanical systems**, pp.1-25, Çesme, Turkey, July 18-30, 2004.
290. Pinto, C.S.C., H. Massard, P. Couto, H.R.B. Orlande, R.M. Cotta, and M.C.R. Ambrosio, “Measurement of Thermophysical Properties of Ceramics by the Flash Method”, **Brazilian Archives of Biology and Technology**, V.49, pp.31-40, 2006. doi: 10.1590/s1516-89132006000200006
291. Castellões, F.V. and R.M. Cotta, “Analysis of Transient and Periodic Convection in Microchannels via Integral Transforms”, Proc. of the **4th Int. Conf. Computational Heat and Mass Transfer, 4th ICCHMT**, vol.1, pp.465-470, Paris-Cachan, France, May 17th-20th, 2005. ISBN 2-7430-0801-6
292. Hirata, S. C., B. Goyeau, D. Gobin, and R.M. Cotta, “Stability Analysis of Natural Convection in Superposed Fluid and Porous Layers”, Proc. of the **4th Int. Conf. Computational Heat and Mass Transfer, 4th ICCHMT**, vol.2, pp.812-815, Paris-Cachan, France, May 17th-20th, 2005. ISBN 2-7430-0801-6
293. Cotta, R.M., C.A.C. Santos, J.N.N. Quaresma, and J.S. Perez-Guerrero, “Hybrid Integral Transforms in Convection-Diffusion: Recent Applications in Internal Flow Simulation”, Invited Lecture, Proc. of the **4th Int. Conf. Computational Heat and Mass Transfer, 4th ICCHMT**, vol.1, pp.153-164, Paris-Cachan, France, May 17th-20th, 2005. ISBN 2-7430-0801-6
294. Hirata, S. C., B. Goyeau, D. Gobin, and R.M. Cotta, “Stabilité de la Convection Naturelle en Couch Horizontale Partiellement Poreuse”, Proc. of the **Congrès Français de Thermique, SFT 2005**, pp.125-130, Reims, France, May-June 2005. https://www.sft.asso.fr/Local/sft/dir/user-3775/documents/actes/Congres_2007/communications/428.pdf
295. Padet, J., R.M. Cotta, N.C. Chereches, and N. El-Wakil, “Convection laminaire interne: critères de sélection pour distinguer les régimes de convection naturelle, mixte ou forcée”, Proc. of the **Congrès Français de Thermique, SFT 2005**, pp.209-214, Reims, France, May-June 2005.
296. Barros, F.P.J. and R.M. Cotta, “Hybrid Solutions for Multidimensional Contaminant Dispersion Models in Rivers and Channels”, Proc. of **WasteEng 05 - 1st Int. Conf. on Engineering for Waste Treatment**, pp.1-8, Albi, France, May, 2005. ISBN:2951159145 <https://pdfs.semanticscholar.org/7659/a48e9eea11a73b5c56841bcd68fdd9f4800b.pdf>
297. Cotta, R.M., S. Kakaç, M.D. Mikhailov, F.V. Castellões, and C.R. Cardoso, “Transient Flow and Thermal Analysis in Microfluidics”, **Microscale Heat**

- Transfer: Fundamentals and Applications**, NATO Science Series II: Mathematics, Physics and Chemistry, vol.193, S. Kakaç et al. (eds.), pp.175-196, 2005. doi: 10.1007/1-4020-3361-3_9
298. Cotta, R.M., M.D. Mikhailov, and S. Kakaç, “Steady and Periodic Forced Convection in Micro Conduits”, **Microscale Heat Transfer: Fundamentals and Applications**, NATO Science Series II: Mathematics, Physics and Chemistry, vol.193, S. Kakaç et al. (eds.), pp.49-74, 2005. doi: 10.1007/1-4020-3361-3_3
299. Castellões, F.V. and R.M. Cotta, “Analysis of Transient and Periodic Convection in Microchannels via Integral Transforms”, **Progress in Computational Fluid Dynamics**, V.6, no.6, pp.321-326, 2006. doi: 10.1504/PCFD.2006.010772
300. Pontedeiro, E.M., P.F.L. Heilbron, and R.M. Cotta, “Assessment of the Mineral Industry NORM/TENORM Disposal in Hazardous Landfills”, Proc. of **WasteEng 05 - 1st Int. Conf. on Engineering for Waste Treatment**, Albi, France, May, 2005. ISBN:2951159145.
https://www.researchgate.net/publication/268207910_Assessment_of_the_Mineral_Industry_NORMTENORM_Disposal_in_Hazardous_Landfills/link/5463b5250cf2cb7e9da998b8/download
301. Castellões, F.V., C.R. Cardoso, P.Couto, and R.M. Cotta, “Transient Analysis of Slip Flow and Heat Transfer in Microchannels”, **Heat Transfer Eng.**, v.28, no.6, pp.549-558, 2007. doi: 10.1080/01457630701193971
302. Barros, F.P.J. and R.M. Cotta, “Integral Transforms for Three-Dimensional Steady Turbulent Dispersion in Rivers and Channels”, **Proc. of HT2005, ASME Summer Heat Transfer Conference**, Vol.2, pp. 719-722, San Francisco, CA, USA, July 17-22, 2005. doi: 10.1115/HT2005-72863
303. Pontedeiro, A.C., R. M. Cotta, and Jian Su, “Thermal Analysis of High Burn-up Nuclear Fuel Rod Using Improved Lumped Model and Kirchoff Transform”, Proc. of **Int. Nuclear Atlantic Conf., INAC 2005**, 14th Meeting on Reactor Physics and Thermal Hydraulics (XIVENFIR), 10p., Santos, SP, Brasil, Aug. 28th – Sept. 2nd, 2005. ISBN: 85-99141-01-5
304. Soares, P. O., F. V. Castellões, P. Couto, and R.M. Cotta, “Transient Convection with Electroosmotic Flow Inside Parallel-Plate Microchannels”, **International Conference of the Brazilian Society of Mechanical Sciences, COBEM-2005**, Ouro Preto, MG, Brazil, November 2005.
305. Heinen, I.R., S. Wortmann, M.T.M.B. Vilhena, and R.M. Cotta, “An Analytical Solution for the Second Order Matrix GITT Transformed Differential Equation by the Laplace Transform Technique”, **International Conference of the Brazilian Society of Mechanical Sciences, COBEM-2005**, Ouro Preto, MG, Brazil, November 2005.
306. Cotta, R.M., H.R.B. Orlande, and L.B. Dantas, “Mixed Formulations and Hybrid Methods for Heat and Mass Transfer in Porous Media”, Proc. of the **6th Minsk Int. Seminar on Heat Pipes, Heat Pumps, Refrigerators**, Invited Plenary

Lecture, pp.27-44, Minsk, Belarus, 12-15 September, 2005. ISBN 985-6456-46-0
http://www.porousmedialab.by/seminar/pdf/03_Cotta_Mixed%20formulations.pdf

307. Moreira, D.M., M.T. Vilhena, T. Tirabassi, D. Buske, and R.M. Cotta, “Near Source Atmospheric Pollutant Dispersion Using the New GILTT Method”, **Atmospheric Environment**, Vol. 39, Issue 34, pp.6289-6294, 2005. doi: 10.1016/j.atmosenv.2005.07.008
308. Hirata, S. C., B. Goyeau, D. Gobin, R. M. Cotta, “Stability Analysis of Natural Convection Within Partially Porous Enclosures”, Proc. of the **4th Workshop on Integral Transforms and Benchmark Problems – IV WIT**, CNEN, Rio de Janeiro, RJ, August 2005.(CD Rom)
309. Castellões, F.V., and R.M. Cotta, “Partial Integral Transformation Analysis of Transient and Periodic Convection in Microchannels”, Proc. of the **4th Workshop on Integral Transforms and Benchmark Problems – IV WIT**, CNEN, Rio de Janeiro, RJ, August 2005.(CD Rom)
310. Cotta, R.M., H.R.B. Orlande, C.A.C. Santos, and J.S. Perez Guerrero, “Hybrid Methods in Engineering and Multiphysics”, Invited Lecture, Proc. of the **4th Workshop on Integral Transforms and Benchmark Problems – IV WIT**, CNEN, Rio de Janeiro, RJ, August 2005.(CD Rom)
311. Almeida, G.L., L.C.G. Pimentel, and R.M. Cotta, “Analytical and Numerical Integral Transform Solutions for Pollutant Dispersion in the Atmosphere”, Proc. of the **4th Workshop on Integral Transforms and Benchmark Problems – IV WIT**, CNEN, Rio de Janeiro, RJ, August 2005.(CD Rom)
312. Soares, P.O., F.V. Castellões, P.Couto, and R.M. Cotta, “Integral Transform Solution of Transient Convection with Electroosmotic Flow Inside Parallel-Plate Microchannels”, Proc. of the **4th Workshop on Integral Transforms and Benchmark Problems – IV WIT**, CNEN, Rio de Janeiro, RJ, August 2005.(CD Rom)
313. Cotta, R.M., and M.D. Mikhailov, “Semi-Analytical Evaluation of Integrals for the Generalized Integral Transform Technique”, Proc. of the **4th Workshop on Integral Transforms and Benchmark Problems – IV WIT**, CNEN, Rio de Janeiro, RJ, August 2005.(CD Rom)
314. Sias, D.F., N. Ruperti Jr., and R.M. Cotta, “Otimização de Algoritmo de Transformação Integral em Problemas de Ablação na Plataforma *Mathematica*”, Proc. of the **4th Workshop on Integral Transforms and Benchmark Problems – IV WIT**, CNEN, pp.1-8, Rio de Janeiro, RJ, August 2005.(CD Rom)
315. Sias, D.F., R. de L. Silva, P. Couto, and R.M. Cotta, “Análise de Escoamento Laminar em Microcanais com Paredes Rugosas: Solução via GITT”, Proc. of the **4th Workshop on Integral Transforms and Benchmark Problems – IV WIT**, CNEN, Rio de Janeiro, RJ, August 2005.(CD Rom)

316. Lima, J.A., R.M. Cotta, C.A.C. Santos, Z.E. Silva, and S.C.L. Neto, “Análise Híbrida do Escoamento Turbulento em Canais via Modelos de Turbulência de uma Equação”, Proc. of the **4th Workshop on Integral Transforms and Benchmark Problems – IV WIT**, CNEN, Rio de Janeiro, RJ, August 2005.(CD Rom)
317. Skaggs, T. H., E. M. Pontedeiro, M. T. van Genuchten, N. Jarvis, R. M. Cotta, “Solute Transport in the Root Zone: Problem Formulation and Analytical Solutions”, **American Geophysical Union Fall Meeting 2005**, Paper # H21E-1398, December 2005.
<https://ui.adsabs.harvard.edu/abs/2005AGUFM.H21E1398S/abstract>
318. Pontedeiro, E.M., P.F.L. Heilbron, and R.M. Cotta, “Assessment of the Mineral Industry NORM/TENORM Disposal in Hazardous Landfills”, **J. Hazardous Materials**, V.139, no.3, pp.563-568, 2007. doi: 10.1016/j.jhazmat.2006.02.063
319. Almeida, G. L., L.C.G. Pimentel, and R. M. Cotta, “Integral Transform Solutions for Atmospheric Pollutant Dispersion”, **Environmental Modeling and Assessment**, V.13, no.1, pp.53-65, 2008. doi: 10.1007/s10666-006-9072-4
320. Dantas, L.B., H.R.B. Orlande, and Cotta, R.M., “Improved Lumped-Differential Formulations and Hybrid Solution Methods for Drying in Porous Media”, **Int. J. Thermal Sciences**, Vol.46, no.9, pp.878-889, 2007. doi: 10.1016/j.ijthermalsci.2006.11.019
321. Barros, F.P.J. and R.M. Cotta, “Integral Transforms for Three-Dimensional Steady Turbulent Dispersion in Rivers and Channels”, **Applied Mathematical Modelling**, V.31, pp.2719-2732, 2007. doi: 10.1016/j.apm.2006.10.024
322. Lachi, M., R.M. Cotta, C.P. Naveira, and J. Padet, “Solution hybride dans l’étude de la convection forcée externe”, Proc. of the **Congrès Français de Thermique, SFT 2006**, Actes T. 1, p. 373-378, Ile de Ré, France, 16th-19th May 2006. ISBN: 2-905267-49-6
323. Padet, J., N. El-Wakil, and R.M. Cotta, “Analytical Solutions of Transient Fully Developed Internal Mixed Convection”, **Visiting Professor Report, Laboratoire de Thermomécanique, Université de Reims**, France, pp.1-42, deposited in Research Gate, Feb. 2006. doi: 10.13140/RG.2.2.17700.94080
https://www.researchgate.net/publication/329070489_Analytical_solutions_of_transient_fully_developed_internal_mixed_convection?channel=doi&linkId=5bf415fba6fdcc3a8de3953c&showFulltext=true
324. Hirata, S.C., B. Goyeau, D. Gobin, R.M. Cotta, “Stability of Natural Convection in Composite Enclosures using Integral Transforms”, **Num. Heat Transfer – part B Fundamentals**, vol.50, pp.409-424, 2006. doi: 10.1080/10407790600682730
325. Quaresma, J.N.N., E.R. Monteiro, C.L. Chaves, E.N. Macêdo, and R.M. Cotta, “Thermally Developing Flow of Power Law Non-Newtonian Fluids in Double-Sine Ducts”, IHTC Digital Library, Proc. of the **13th Int. Heat Transfer Conference**, 12p., Sidney, Australia, 2006. doi: 10.1615/IHTC13.p20.90

326. Couto, P., L.G. Lara, D.M.A. Sophia, and R.M. Cotta, "Thermal Control of Adsorbed Natural Gas Reservoirs under Discharge Dynamic Condition", IHTC Digital Library, Proc. of the **13th Int. Heat Transfer Conference**, 12p., Sidney, Australia, 2006. doi: 10.1615/IHTC13.p2.100
327. Lachi, M., R.M. Cotta, C.P. Naveira, and J. Padet, "Improved Lumped-Differential Formulation of Transient Conjugated Conduction-Convection in External Flow", **11th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2006**, Curitiba, Brazil, Paper no. CIT06-0965, December 2006. <http://abcm.org.br/app/webroot/anais/encit/2006/arquivos/Heat%20Transfer/CIT06-0965.pdf>
328. Paz, S.P.A., E.N. Macedo, J.N.N. Quaresma, and R.M. Cotta, "Hybrid Solution for Hydrodynamically Developing Flow in Circular Tubes", **11th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2006**, Curitiba, Brazil, Paper no. CIT06-0656, December 2006. <http://abcm.org.br/app/webroot/anais/encit/2006/arquivos/Numerical%20Methods/CIT06-0656.pdf>
329. Monteiro, E.R., E.N. Macedo, J.N.N. Quaresma, and R.M. Cotta, "Thermally Developing Non-Newtonian Laminar Flow in Eccentric Annular Ducts", **11th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2006**, Curitiba, Brazil, Paper no. CIT06-0648, December 2006. <http://abcm.org.br/app/webroot/anais/encit/2006/arquivos/Numerical%20Methods/CIT06-0648.pdf>
330. Moreira da Silva, C.A., E.N. Macedo, J.N.N. Quaresma, and R.M. Cotta, "Analysis of Hyperbolic Heat Conduction in Fins through the Generalized Integral Transform Technique", **11th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2006**, Curitiba, Brazil, Paper no. CIT06-0654, December 2006. <http://abcm.org.br/app/webroot/anais/encit/2006/arquivos/Numerical%20Methods/CIT06-0654.pdf>
331. Lara, L.G., P. Couto, R.M. Cotta, and D.M.A. Sophia, "Theoretical Model for the Discharge Process of Adsorbed Natural Gas Reservoirs", **11th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2006**, Curitiba, Brazil, Paper no. CIT06-0540, December 2006. <http://abcm.org.br/app/webroot/anais/encit/2006/arquivos/Petroleum%20and%20Natural%20Gas/CIT06-0540.pdf>
332. Lara, L.G., P. Couto, R.M. Cotta, and D.M.A. Sophia, "Gas Discharge Capacity Intensification of Adsorbed Natural Gas Reservoirs", **11th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2006**, Curitiba, Brazil, Paper no. CIT06-0633, December 2006. <http://abcm.org.br/app/webroot/anais/encit/2006/arquivos/Petroleum%20and%20Natural%20Gas/CIT06-0633.pdf>
333. Hirata, S.C., B. Goyeau, D. Gobin, M. Carr, and R.M. Cotta, "Linear Stability of Natural Convection in Superposed Fluid and Porous Layers: Influence of the

Interfacial Modelling”, **Int. J. Heat & Mass Transfer**, V.50, no.7-8, pp.1356-1367, 2007. doi: 10.1016/j.ijheatmasstransfer.2006.09.038

334. Paz, S.P.A., E.N. Macedo, J.N.N. Quaresma, and R.M. Cotta, “Eigenfunction Expansion Solution for Boundary Layer Equations in Cylindrical Coordinates: Simultaneously Developing Flow in Circular Tubes”, **Num. Heat Transfer – part A Applications**, V.52, no.12, pp. 1123-1149, 2007. doi: 10.1080/10407780701364445
335. Skaggs, T.H., N.J. Jarvis, E.M. Pontedeiro, M.Th. van Genuchten, R.M. Cotta, “Analytical Advection-Dispersion Model for Transport and Plant Uptake of Contaminants in the Root Zone”, **Vadose Zone Journal**, V.6, no.4, pp. 890–898, November 2007. doi: 10.2136/vzj2007.0124
336. Naveira, C.P., M. Lachi, R. M. Cotta, and J. Padet, “Integral Transform Solution of Transient Forced Convection in External Flow”, **Int. Comm. Heat & Mass Transfer**, V. 34, pp. 703-712, 2007. doi: 10.1016/j.icheatmasstransfer.2007.03.014
337. Hirata, S.C., B. Goyeau, D. Gobin, and R.M. Cotta, “Stabilité de la Convection Thermosolutale en Couches Fluides et Poreuse Superposées”, Proc. of the **Congrès Français de Thermique, SFT 2007**, Paper # 428, pp.1-6, Ile des Embiez, France, May 2007.
https://www.sft.asso.fr/Local/sft/dir/user-3775/documents/actes/Congres_2007/communications/428.pdf
338. Hirata, S.C., P. Couto, L.G. Lara, and R.M. Cotta, “Hybrid Simulation of the Slow Discharge Process from Adsorbed Methane Tanks”, **Reactive Heat Transfer in Porous Media, Proc. of Eurotherm Seminar no.81**, Paper no. ET81-0047, pp.1-8, Albi, France, June 2007. http://eurotherm81.mines-albi.fr/papers_pdf/47-Hirata.pdf
339. Naveira, C.P., R.M. Cotta, M. Lachi, and J. Padet, “Transient Conjugated Conduction- External Convection With Front Face Imposed Wall Heat Flux”, **Proc. of IMECE2007, ASME International Mechanical Engineering Congress & Exposition**, Paper no. IMECE2007-41417, V.8: Heat Transfer, Fluid Flows, and Thermal Systems, Parts A and B, pp:1371-1380, Seattle, Washington, USA, November 11-15, 2007. doi:10.1115/IMECE2007-41417
340. Cotta, R. M., C.A.C. Santos, and S. Kakaç, “Unified Hybrid Theoretical Analysis of Nonlinear Convective Heat Transfer”, **Proceedings of IMECE2007, ASME International Mechanical Engineering Congress & Exposition**, Paper no. IMECE2007-41412, V. 8: Heat Transfer, Fluid Flows, and Thermal Systems, Parts A and B, pp:1361-1370, Seattle, Washington, USA, November 11-15, 2007. doi:10.1115/IMECE2007-41412.
341. Silva, R.L., C.A.C. Santos, J.N.N. Quaresma, and R.M. Cotta, “Hybrid Solution for Developing Laminar Flow in Wavy-Wall Channels via Integral Transforms”, **Proc. of IMECE2007, ASME International Mechanical Engineering Congress**

& Exposition, Paper no. IMECE2007-42965, pp. 1479-1487, Seattle, Washington, USA, November 11-15, 2007. doi: 10.1115/IMECE2007-42965

342. Fonseca, H.M., H.R.B. Orlande, and R.M. Cotta, "Measurements of Nanofluids Physical Properties", **International Conference of the Brazilian Society of Mechanical Sciences, COBEM-2007**, Paper # 2496, pp.1-10, Brasilia, DF, Brazil, November 2007. <https://abcm.org.br/anais/cobem/2007/pdf/COBEM2007-2496.pdf>
343. Cotta, R.M., C. P. Naveira, M. Th. van Genuchten, and M.J. Unga, "An Integral Transforms Application to Environmental Impact Assessment of Uranium Mining Waste Disposal", **International Conference of the Brazilian Society of Mechanical Sciences, COBEM-2007**, Paper # 2364, pp.1-10, Brasilia, DF, Brazil, November 2007 <https://abcm.org.br/anais/cobem/2007/pdf/COBEM2007-2364.pdf>
344. Sias, D.F., N.J. Ruperti Jr., and R.M. Cotta, "Enhanced Convergence of Integral Transform Solution of Ablation Problems", **International Conference of the Brazilian Society of Mechanical Sciences, COBEM-2007**, Paper # 2365, pp.1-10, Brasilia, DF, Brazil, November 2007. <https://abcm.org.br/anais/cobem/2007/pdf/COBEM2007-2365.pdf>
345. Hirata, S.C., B. Goyeau, D. Gobin, and R.M. Cotta, "On the Modelling of Natural Convection in Adjacent Fluid and Porous Layers", **International Conference of the Brazilian Society of Mechanical Sciences, COBEM-2007**, Paper # 2363, pp.1-10, Brasilia, DF, Brazil, November 2007. <https://abcm.org.br/anais/cobem/2007/pdf/COBEM2007-2363.pdf>
346. Moreira, P.H.S., M.Th. van Genuchten, R.M. Cotta, and H.R.B. Orlande, "Analysis of Models for the Transport of Tracers in Soil Columns", **International Conference of the Brazilian Society of Mechanical Sciences, COBEM-2007**, Paper # 2497, pp.1-10, Brasilia, DF, Brazil, November 2007. <https://abcm.org.br/anais/cobem/2007/pdf/COBEM2007-2497.pdf>
347. Cardoso, S.A., E.N. Macedo, J.N.N. Quaresma, and R.M. Cotta, "Computational Simulation of Metal Extraction Process Using Polymeric Membranes", **International Conference of the Brazilian Society of Mechanical Sciences, COBEM-2007**, Paper # 2076, pp.1-10, Brasilia, DF, Brazil, November 2007. <https://abcm.org.br/anais/cobem/2007/pdf/COBEM2007-2076.pdf>
348. Moreira da Silva, C.A., C.C.S. Cruz, E.N. Macedo, J.N.N. Quaresma, and R.M. Cotta, "Analysis of Non-Fourier Heat Conduction in Conical Pin Fins through the Generalized Integral Transform Technique", **International Conference of the Brazilian Society of Mechanical Sciences, COBEM-2007**, Paper # 2216, pp.1-10, Brasilia, DF, Brazil, November 2007. <https://abcm.org.br/anais/cobem/2007/pdf/COBEM2007-2216.pdf>
349. Pontedeiro, A.C., R.M. Cotta, and Jian Su, "Thermal Analysis of High Burn-up Nuclear Fuel Rod using Generalized Integral Transform Technique", **2007 International Nuclear Atlantic Conference - INAC 2007**, pp.1-10, Santos, SP,

Brazil, September 30 October 5, 2007. ISBN: 97885-99141-02-1
https://www.ipen.br/biblioteca/cd/inac/2007/pdf_dvd/R02_1838.pdf

350. Guigon, J.M.B.S., J.S. Perez Guerrero, and R.M. Cotta, "Computational Optimization for Integral Transform Algorithms Applied to the Lid-Driven Cavity Flow Problem", **Thermal Engineering (RETERM)**, V.6, no.1, pp.104-113, June 2007. ISSN: 1676-1790; doi: 10.5380/reterm.v6i1.61824
351. Pontedeiro, E.M., J. Simunek, M. Th. van Genuchten, and R.M. Cotta, "Performance Assessment Modeling of a Radioactive Mining Waste Disposal Site", **The ASA-CSSA-SSSA International Annual Meetings**, Symposium Evaluating Water Flux in the Vadose Zone: Computational Methods and Geostatistical Approaches, In Honor of Art Warrick, Paper no. 1402, New Orleans, November 4-8, 2007. <https://a-c-s.confex.com/crops/2007am/techprogram/P34875.HTM>
352. Hirata, S. C., P. Couto, L. G. Lara, and R. M. Cotta, "Modelling and Hybrid Simulation of Slow Discharge Process of Adsorbed Methane Tanks", **Int. J. Thermal Sciences**, V.48, pp.1176-1183, 2009. doi: 10.1016/j.ijthermalsci.2008.09.001
353. Pontedeiro, A.C., R. M. Cotta, and Jian Su, "Improved Lumped Model for Thermal Analysis of High Burn-up Nuclear Fuel Rods", **Progress in Nuclear Energy**, Special Issue, Vol.50, pp.767-773, 2008. doi: 10.1016/j.pnucene.2008.01.005
354. Lachi, M., C. P. Naveira, H.R.B. Orlande, and R.M. Cotta, "Inverse Problem Analysis for Heat Flux Estimation in Conjugated Conduction-External Convection", Proc. of the **4th Int. Symposium on Advances in Computational Heat Transfer, CHT-08**, Marrakesh, Morocco, 20p., May 2008. doi: 10.1615/ICHMT.2008.CHT.2160
355. Ezan, M., J. Padet, N. El Wakil, and R.M. Cotta, "Some Investigations on Transient Mixed Convection", Proc. of the **4th Int. Symposium on Advances in Computational Heat Transfer, CHT-08**, Marrakesh, Morocco, 20p., May 2008. doi: 10.1615/ICHMT.2008.CHT.920
356. Pontedeiro, E. M., M. Th van Genuchten, R. M. Cotta, J. Simunek, "The Impact of Preferential Flow on the Risk Assessment of a Radioactive Mining Waste Disposal Site", Proc. of **WasteEng 08 – 2nd Int. Conf. on Engineering for Waste Valorisation**, pp.1-8, Patras Greece, 3rd-5th June, 2008. ISBN: 978-960-530-101-9 <https://hal.archives-ouvertes.fr/hal-00440434>
357. Silva, C. A. M., E. N. Macedo, J. N. N. Quaresma, L. M. Pereira, and R.M. Cotta, "Integral Transform Solution of the Navier-Stokes Equations in Full Cylindrical Regions with Streamfunction Formulation", **Int. J. Num. Meth. Biomedical Eng.**, V.26, pp.1417-1434, 2010. doi: 10.1002/cnm.1222
358. Padet, J., R. M. Cotta, N.C. Chereches, and V. Pavel, "Convection Mixte Laminaire Établie dans une Conduite Annulaire", Proc. of the **French-Romanian**

Colloquium Energy, Environment, Economy and Thermodynamics, COFRET 2008, pp.1-10, Nantes, France, 11th-13th June 2008.

https://www.researchgate.net/publication/278382747_CONVECTION_MIXTE_LAMINAIRE_ETABLIE_DANS_UNE_CONDUITE_ANNULAIRE/link/557fe11908aeea18b779797a/download

359. Silva, R.L., C.A.C. Santos, J.N.N. Quaresma, and R.M. Cotta, “Integral Transforms Solution for Flow Development in Wavy-Wall Ducts”, **Int. J. Num. Meth. Heat & Fluid Flow**, Vol. 21, no. 2, pp. 219-243, 2011. doi 10.1108/09615531111105416
360. Naveira, C.P., M. Lachi, R. M. Cotta, and J. Padet, “Hybrid Formulation and Solution for Transient Conjugated Conduction-External Convection”, **Int. J. Heat & Mass Transfer**, V. 52, Issues 1-2, pp. 112-123, 2009. doi: 10.1016/j.ijheatmasstransfer.2008.05.034
361. Nunes, J.S., P. Couto, and R.M. Cotta, “Conjugated Heat Transfer Problem in Rectangular Micro-channels under Asymmetric Conditions”, **Proc. of 5th National Congress of Mechanical Engineering, CONEM 2008**, ABCM, Paper no. CON08-0739, pp.1-10, Salvador, BA, 25th-28th August 2008. <https://www.abcm.org.br/anais/conem/2008/pdf/CON08-0739.pdf>
362. Naveira, C.P., O. Fudym, R. M. Cotta, and H.R.B. Orlande, “Integral Transform Solutions for Diffusion in Heterogeneous Media”, **Proceedings of IMECE2008, ASME International Mechanical Engineering Congress & Exposition**, Paper no. IMECE2008-69114, pp. 949-958, Boston, MA, USA, November 1-6, 2008. doi: 10.1115/IMECE2008-69114
363. Castellões, F.V., and R.M. Cotta, “Laminar Forced Convection in Corrugated Micro-Channels via Integral Transforms”, **12th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2008**, Paper # 5208, pp.1-10, Belo Horizonte, Brazil, November 10-14, 2008. https://abcm.org.br/anais/encit/2008/artigos/7_5208.pdf
364. Naveira, C.P., R.M. Cotta, H.R.B. Orlande, and O. Fudym, “Generalized Integral Transform Technique for Sturm-Liouville Problems in Heterogeneous Media”, **12th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2008**, Paper # 5399, pp.1-10, Belo Horizonte, Brazil, November 10-14, 2008. https://abcm.org.br/anais/encit/2008/artigos/7_5399.pdf
365. Lachi, M., C.P. Naveira, M. Rebay, and R.M. Cotta, “Experimental and Theoretical Analysis of Transient Conjugated Conduction-External Convection”, **12th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2008**, Paper # 4661, pp.1-10, Belo Horizonte, Brazil, November 10-14, 2008. https://abcm.org.br/anais/encit/2008/artigos/7_4661.pdf
366. Soares, P.O., R.M. Cotta, and A.J. Silva Neto, “Convection in Microchannels with Electroosmotic Flow: Integral Transforms in Pseudo-Transient Formulation”, **12th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2008**, Paper

5254, pp.1-8, Belo Horizonte, Brazil, November 10-14, 2008.
https://abcm.org.br/anais/encit/2008/artigos/7_5254.pdf

367. Castellões, F.V. and R.M. Cotta, "Heat Transfer Enhancement in Smooth and Corrugated Microchannels", Proc. of the **7th Minsk Int. Seminar on Heat Pipes, Heat Pumps, Refrigerators**, pp.65-78, Invited Plenary Lecture, Minsk, Belarus, 8th-11th September, pp.65-78, 2008.
<http://www.porousmedialab.by/seminar/pdf1/9.pdf>
368. Quaresma, J.N.N., E.N. Macedo, H. M. Fonseca, H.R.B. Orlande, and R.M. Cotta, "An Analysis of Heat Conduction Models for Nanofluids", **Heat Transfer Eng.**, V.31, no.14, pp.1125-1136, 2010. doi: 10.1080/01457631003689211
369. Naveira-Cotta, C.P., R.M. Cotta, H.R.B. Orlande, and O. Fudym, "Eigenfunction Expansions for Transient Diffusion in Heterogeneous Media", **Int. J. Heat and Mass Transfer**, V.52, pp.5029-5039, 2009. doi:10.1016/j.ijheatmasstransfer.2009.04.014
370. Monteiro, E.R., E.N. Macêdo, J.N.N. Quaresma, R.M. Cotta, "Integral Transform Solution for Hyperbolic Heat Conduction in a Finite Slab", **Int. Comm. Heat & Mass Transfer**, V.36, pp.297-303, 2009. doi: 10.1016/j.icheatmasstransfer.2009.01.002
371. Sias, D.F., N.J. Rupert Jr., R.M. Cotta, "Enhanced Convergence of Integral Transform Solution of Ablation Problems", **High Temperatures, High Pressures, Thermophysical Properties: Fundamentals and Applications**, V.38, no.2, pp.81-96, 2009. ISSN: 0018-1544
372. Fonseca, H.M., H.R.B. Orlande, R.M. Cotta, and I. Tavman, "Measurement of physical properties of Alumina-water nanofluids", **High Temperatures, High Pressures, Thermophysical Properties: Fundamentals and Applications**, V.38, no.2, pp.187-197, 2009. ISSN: 0018-1544
373. Cotta, R.M., C.A.A. Mota, C.P. Naveira-Cotta, J.S. Nunes, M.R. Avelino, F.V. Castellões, and J.N.N. Quaresma, "Heat Transfer Enhancement in Laminar Forced Convection: Nanofluids, Microchannels, Structured Surfaces", Invited Keynote Lecture, ICHMT Digital Library, Proc. of **International Symposium on Convective Heat and Mass Transfer in Sustainable Energy, CONV-09**, 38p., Yasmine Hammamet, Tunisia, April 2009. doi: 10.1615/ICHMT.2009.CONV.60
374. Lachi, M., C.P. Naveira-Cotta, M. Rebay, and R.M. Cotta, "Comparison of Experiments and Hybrid Simulations of Transient Conjugated Conduction-Convection-Radiation", ICHMT Digital Library, Proc. of **International Symposium on Convective Heat and Mass Transfer in Sustainable Energy, CONV-09**, 17p., Yasmine Hammamet, Tunisia, April 2009. doi: 10.1615/ICHMT.2009.CONV.220
375. Orlande, H.R.B., M. Th. van Genuchten, R.M. Cotta, and P.H.S. Moreira, "Bayesian Estimation of Hydraulic and Solute Transport Parameters from Laboratory Soil Column Experiments", ICHMT Digital Library, Proc. of

International Symposium on Convective Heat and Mass Transfer in Sustainable Energy, CONV-09, 20p., Yasmine Hammamet, Tunisia, April 2009. doi: 10.1615/ICHMT.2009.CONV.690

376. van Genuchten, M. Th., E.M. Pontedeiro, and R.M. Cotta, “Modeling Contaminant Transport Processes in Soils and Groundwater”, Invited Keynote Lecture, ICHMT Digital Library, Proc. of **International Symposium on Convective Heat and Mass Transfer in Sustainable Energy, CONV-09**, 20p., Yasmine Hammamet, Tunisia, April 2009. doi: 10.1615/ICHMT.2009.CONV.80
377. Castellões, F.V., J.N.N. Quaresma, and R.M. Cotta, “Convective Heat Transfer Enhancement in Low Reynolds Number Flows with Wavy Walls”, **Int. J. Heat & Mass Transfer**, Vol.53, pp.2022-2034, 2010. doi:10.1016/j.ijheatmasstransfer.2009.12.054
378. Reis, M.C., L.A. Sphaier, L.S.B. Alves, and R.M. Cotta, “Improved Lumped-Differential Formulations for Laminar Fluid Flow in Polygonal Cross-Section Ducts”, **20th International Congress of Mechanical Engineering, COBEM-2009**, ABCM, Paper # COB09-0052, pp.1-10, Gramado, RS, Brazil, November 2009. <https://abcm.org.br/anais/cobem/2009/pdf/COB09-0052.pdf>
379. Naveira-Cotta, C.P., W. Berk, R.M. Cotta, and H.R.B. Orlande, “Infrared Thermography and Inverse Problem Analysis of Heat Flux Partition in Sandwiched Plates”, **20th International Congress of Mechanical Engineering, COBEM-2009**, ABCM, Paper #COB09-1230, pp.1-10, Gramado, RS, Brazil, November 2009. <https://abcm.org.br/anais/cobem/2009/pdf/COB09-1230.pdf>
380. Sias, D.F., N.J. Ruperti Jr., and R.M. Cotta, “Integral Transform Solution of Ablation Problems with Pyrolysis”, **20th International Congress of Mechanical Engineering, COBEM-2009**, ABCM, Paper # COB09-3147, pp.1-12, Gramado, RS, Brazil, November 2009. <https://abcm.org.br/anais/cobem/2009/pdf/COB09-3147.pdf>
381. Dantas, L.B., R.M. Cotta, H.R.B. Orlande, and C.A. Aquino, “Integral Transform Analysis of Drying in Cylindrical Capillary Porous Media: Comparison of Two-Dimensional and Lumped-Differential Formulations”, **20th International Congress of Mechanical Engineering, COBEM-2009**, ABCM, Paper # COB09-2971, pp.1-9, Gramado, RS, Brazil, November 2009. <https://abcm.org.br/anais/cobem/2009/pdf/COB09-2971.pdf>
382. Absi Salas, F.M., C.P. Naveira-Cotta, H. M. Fonseca, R.M. Cotta, C. Pradère, W. Berk, H.R.B. Orlande, M.C. Bitencourt, and P.H.S. Moreira “Estimation of Boundary Heat Flux in a Thin Plate With the Conjugate Gradient Method”, **20th International Congress of Mechanical Engineering, COBEM-2009**, ABCM, Paper #COB09-3223, pp.1-10, Gramado, RS, Brazil, November 2009. <https://abcm.org.br/anais/cobem/2009/pdf/COB09-3223.pdf>
383. Absi Salas, F.M., C.P. Naveira-Cotta, R.M. Cotta, C. Pradère, W. Berk, H.R.B. Orlande, and M. C. Bitencourt, “Bayesian Estimation of Boundary Heat Flux in a Thin Plate”, **20th International Congress of Mechanical Engineering, COBEM-**

- 2009, ABCM, Paper #COB09-3220, pp.1-10, Gramado, RS, Brazil, November 2009. <https://abcm.org.br/anais/cobem/2009/pdf/COB09-3220.pdf>
384. Nunes, J.S., M.R. Avelino, and R.M. Cotta, “Theoretical-Experimental Analysis of Conjugated Conduction-Convection in Micro-Channels under Asymmetric Conditions”, **20th International Congress of Mechanical Engineering, COBEM-2009**, ABCM, Paper # COB09-1201, pp.1-10, Gramado, RS, Brazil, November 2009. <https://abcm.org.br/anais/cobem/2009/pdf/COB09-1201.pdf>
385. Cardoso, S.A., E.N. Macedo, J.N.N. Quaresma, and R.M. Cotta, “Hybrid Solutions for the Analysis of Mass Transfer in Hollow-Fiber Membranes”, **20th International Congress of Mechanical Engineering, COBEM-2009**, ABCM, Paper # COB09-2205, pp.1-10, Gramado, RS, Brazil, November 2009. <https://abcm.org.br/anais/cobem/2009/pdf/COB09-2205.pdf>
386. Monteiro, E. R., E. N. Macêdo, J. N. N. Quaresma and R. M. Cotta, “Laminar Flow and Convective Heat Transfer of Non-Newtonian Fluids in Doubly Connected Ducts”, **Int. J. Heat & Mass Transfer**, Vol.53, pp.2434-2448, 2010. doi:10.1016/j.ijheatmasstransfer.2010.01.040
387. Cotta, R.M., C.P. Naveira-Cotta, and H.R.B. Orlande, “Combining Integral Transforms and Bayesian Inference in the Direct and Inverse Analysis of Heat Transfer Problems”, Proc. of the **11th UK National Heat Transfer Conference**, (Invited Keynote Lecture), pp.1-20, Londres, Inglaterra, 6th-8th September, 2009. <http://ukhtc.sems.qmul.ac.uk/speakers/>
388. Cotta, R.M., C.P. Naveira-Cotta, L.A. Sphaier, and J.N.N. Quaresma, “Unified Integral Transforms in Convection Diffusion: The Unit Code With Symbolic Computation”, **First International Conference on Computational Methods for Thermal Problems - ThermaComp2009**, pp.219-222, September, 2009, Napoli, Italy. ISBN-13: 978-88-7431-459-1
389. Cotta, R.M., C.P. Naveira-Cotta, H.R.B. Orlande, and S. Kakaç, “Direct and Inverse Problems Solutions in Micro-Scale Forced Convection with Slip Flow”, Invited Keynote Lecture, **NATO Advanced Study Institute on Microsystems for Security – Fundamentals and Application**, pp.1-4, Cesme-Izmir, Turquia, August 23 – September 4, 2009.
390. Cotta, R.M., J.S. Nunes, M.R. Avelino, F.V. Castellões, and J.N.N. Quaresma, “Heat Transfer Enhancement in Microchannels”, Invited Keynote Lecture, **NATO Advanced Study Institute on Microsystems for Security – Fundamentals and Application**, pp.1-4, Invited Keynote Lecture, Cesme-Izmir, Turquia, August 23 – September 4, 2009.
391. Naveira-Cotta, C.P., H.R.B. Orlande, and R.M. Cotta, “Inverse Analysis of Forced Convection in Microchannels with Slip Flow via Integral Transforms and Bayesian Inference”, **Int. J. Thermal Sciences**, V.49, pp.879-888, 2010. doi:10.1016/j.ijthermalsci.2009.12.009

392. Naveira-Cotta, C.P., H.R.B. Orlande, and R.M. Cotta, "Integral Transforms and Bayesian Inference in the Identification of Variable Thermal Conductivity in Two-Phase Dispersed Systems", **Num. Heat Transfer – part B Fundamentals**, V.57, no.3, pp.1-30, 2010. doi: 10.1080/10407791003685106
393. Naveira-Cotta, C.P., H. Massard da Fonseca, R.M. Cotta, O. Fudym, and H.R.B. Orlande, "Bayesian Approach for Thermal Characterization of Heterogeneous Media", **Proc. of the 1st ARCUS Thermophysical Properties School**, pp.73-91, PUC-PR, Curitiba, Brasil, 8th-9th October 2009.
394. Sphaier, L.A. , R.M. Cotta, C.P. Naveira-Cotta, and J.N.N. Quaresma, "The UNIT (Unified Integral Transforms) Symbolic-Numerical Computational Platform for Benchmarks in Convection-Diffusion Problems", **30° CILAMCE - Iberian-Latin-American Congress on Computational Methods in Engineering**, Paper # 1126, pp.1-14, Armação de Búzios, RJ, 8th-11th November, 2009.
395. Naveira-Cotta, C.P., M. Lachi, M. Rebay, and R.M. Cotta, "Experiments and Simulations in Transient Conjugated Conduction-Convection-Radiation", **Heat Transfer Research**, V.41, no.3, pp. 209-231, 2010. doi: 10.1615/HeatTransRes.v41.i3.20
396. Naveira-Cotta, C.P., H.R.B. Orlande, and R.M. Cotta, "Hybrid Integral Transforms and Bayesian Inference in Direct-Inverse Analysis of Heat Transfer Problems", **METTI IV - Thermal Measurements and Inverse Techniques**, Franco-Brazilian Advanced School, pp.1-28, Angra dos Reis, RJ, November 2009.
397. Nunes, J.S., R.M. Cotta, M.R. Avelino, and S. Kakaç, "Conjugated Heat Transfer in Microchannels", **Microfluidics Based Microsystems: Fundamentals and Applications**, NATO Science for Peace and Security Series A: Chemistry and Biology, Kakaç, S., Kosoy, B., Pramuanjaroenkij, A. (Eds.), pp. 61-82, 2010. doi: 10.1007/978-90-481-9029-4_4
398. Naveira-Cotta, C.P., R.M. Cotta, H.R.B. Orlande, and S. Kakaç, "Direct and Inverse Problems Solutions in Micro-Scale Forced Convection", **Microfluidics Based Microsystems: Fundamentals and Applications**, NATO Science for Peace and Security Series A: Chemistry and Biology, Kakaç, S., Kosoy, B., Pramuanjaroenkij, A. (Eds.), pp.39-60, 2010. doi: 10.1007/978-90-481-9029-4_3
399. Pontedeiro, E. M., M. Th van Genuchten, R. M. Cotta, and J. Simunek, "The Effects of Preferential Flow and Soil Texture on Risk Assessments of a NORM Waste Disposal Site", **J. Hazardous Materials**, V.174, pp.648-655, 2010. doi: 10.1016/j.jhazmat.2009.09.100
400. Naveira-Cotta, C.P., H.R.B. Orlande, and R.M. Cotta, "Combining Integral Transforms and Bayesian Inference in the Simultaneous Identification of Variable Thermal Conductivity and Thermal Capacity in Heterogeneous Media", **ASME J. Heat Transfer**, V.133, no.11, pp. 1301-1311, 2011. doi: 10.1115/1.4004010
401. Cotta, R.M., J.N.N. Quaresma, L.A. Sphaier, and C.P. Naveira-Cotta, "Unified Integral Transform Approach in the Hybrid Solution of Multidimensional

- Nonlinear Convection-Diffusion Problems", **14th Int. Heat Transfer Conf.**, Vol.2, Paper no. IHTC14-22396; pp. 477-486, Washington, DC, USA, August 2010. doi: 10.1115/IHTC14-22396
402. Naveira-Cotta, C.P., H.R.B. Orlande, R.M. Cotta, and J.S. Nunes, "Integral Transforms, Bayesian Inference, and Infrared Thermography in the Simultaneous Identification of Variable Thermal Conductivity and Diffusivity in Heterogeneous Media", **14th Int. Heat Transfer Conf.**, Vol.3, Paper no. IHTC14-22511; pp. 341-350, Washington, DC, USA, August 2010. doi: 10.1115/IHTC14-22511
403. Padet, J., R.M. Cotta, and E.C. Mladin, "Un Autre Regard sur la Convection Mixte", Proc. of the **French-Romanian Colloquium Energy, Environment, Economy and Thermodynamics, COFRET 2010**, Invited Plenary Lecture, Paper # 35, pp. 1-10, Iasi, Romania, May 2010.
404. Cotta, R.M., B.P. Cotta, C.P. Naveira-Cotta, and G. Cotta-Pereira, "Hybrid Integral Transforms Analysis of the Bioheat Equation with Variable Properties", **Int. J. Thermal Sciences**, V.49, no.9, pp.1510-1516, 2010. doi: 10.1016/j.ijthermalsci.2010.04.019
405. Naveira-Cotta, C.P., R.M. Cotta, and H.R.B. Orlande, "Inverse Analysis with Integral Transformed Temperature Fields for Identification of Thermophysical Properties Functions in Heterogeneous Media", **Int. J. Heat & Mass Transfer**, V.54, no.7-8, pp.1506-1519, 2011. doi: 10.1016/j.ijheatmasstransfer.2010.11.042
406. Naveira-Cotta, C.P., R.M. Cotta, and H.R.B. Orlande, "Estimation of Space Variable Thermophysical Properties", In: **Thermal Measurements and Inverse Techniques**, eds. H.R.B. Orlande, O. Fudym, D. Maillet and R.M. Cotta, Chap.20, pp.675-707, CRC Press, 2011. ISBN 9781138113862
407. Sias, D.F., N. Ruperti Jr., and R.M. Cotta, "Hybrid Solution of Ablation in Thermal Protection Materials with Degradation", **13th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2010**, Paper # ENC10-0317, pp.1-10, Uberlândia, MG, Brazil, December, 2010. <http://www.abcm.org.br/app/webroot/anais/encit/2010/PDF/ENC10-0317.pdf>
408. Knupp, D.C., C.P. Naveira-Cotta, H.R.B. Orlande, and R.M. Cotta, "Unified Integral Transforms (UNIT) Code Applied to Heat Diffusion In Heterogeneous Media", **13th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2010**, Paper # ENC10-0670, pp.1-10, Uberlândia, MG, Brazil, December, 2010. <http://www.abcm.org.br/app/webroot/anais/encit/2010/PDF/ENC10-0670.pdf>
409. Monteiro, E.F., J.N.N. Quaresma, and R.M. Cotta, "Hybrid Solution of Multidimensional Phase Change Heat Conduction Problems Via Integral Transforms", **13th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2010**, Paper # ENC10-0340, pp.1-10, Uberlândia, MG, Brazil, December, 2010. <http://www.abcm.org.br/app/webroot/anais/encit/2010/PDF/ENC10-0340.pdf>

410. Cerqueira, I.G., C.A.A. Mota, J.S. Nunes, and R.M. Cotta, "Experimental-Theoretical Analysis of Laminar Internal Forced Convection with Nanofluids", **13th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2010**, Paper# ENC10-0316, pp.1-10, Uberlândia, MG, Brazil, December, 2010. <http://www.abcm.org.br/app/webroot/anais/encit/2010/PDF/ENC10-0316.pdf>
411. Knupp, D.C., C.P. Naveira-Cotta, J.V.C. Ayres, H.R.B. Orlande, and R.M. Cotta, "Comparison of Experimental and Theoretical Results in Transient Heat Conduction via Infrared Thermography and Unified Integral Transforms (UNIT Code)", **13th Encontro de Modelagem Computacional, EMC2010**, pp.1-13, Nova Friburgo, RJ, Brazil, November, 2010. <http://www.iprj.uerj.br/index.php/emc/2010.html>
412. Basto, R.L.Q., N.S. Amorim, J.C.B. Leite, M.A. von Kruger, W.C.A. Pereira, and R.M. Cotta, "Avaliação Computacional da Elevação da Temperatura Causada por Ultrassom na Interface Músculo-Osso", **XXII Congresso Brasileiro de Engenharia Biomédica**, Vol.2, pp.952-955, Tiradentes, MG, November 21-25, 2010. ISSN 2179-3220 <http://www.sbeb.org.br/site/wp-content/uploads/XXIICBEB2010Vol2.pdf>
413. Sphaier, L.A., R.M. Cotta, C.P. Naveira-Cotta, and J.N.N. Quaresma, "The UNIT Algorithm for Solving One-Dimensional Convection-Diffusion Problems via Integral Transforms", **Int. Comm. Heat & Mass Transfer**, V.38, no.5, pp.565-571, 2011. doi: 10.1016/j.icheatmasstransfer.2010.12.036
414. Knupp, D.C., C.P. Naveira-Cotta, J.V.C. Ayres, H.R.B. Orlande, and R.M. Cotta, "Experimental-Theoretical Analysis in a Transient Heat Conduction Setup via Infrared Thermography and Unified Integral Transforms", **Int. Review Chemical Eng., IRECHE**, V.2, no.6, pp.736-747, 2010. ISSN: 2035-1755
415. Tavman, I.H., A. Turgut, H.M. Fonseca, H.R.B. Orlande, R.M. Cotta, and M. Magalhães, "Thermal Diffusivity Measurements of Conductive Nanocomposites Based on Eva Copolymer Filled with Expanded and Unexpanded Graphite", **9th Asian Thermophysical Properties Conference, ATPC 9**, Paper ATPC # 109094, pp.1-7, Beijing, China, October 2010. [http://www1.ustb.edu.cn/atpc2010/attach/program\(no%20chairman\).pdf](http://www1.ustb.edu.cn/atpc2010/attach/program(no%20chairman).pdf)
416. Naveira-Cotta, C.P., E.M. Pontedeiro, R.M. Cotta, J. Su, M.Th. van Genuchten, "Environmental Impact Assessment of Liquid Waste Ponds in Uranium Milling Installations", **Waste and Biomass Valorization**, vol.4, no.1, pp.197-211, 2013. doi: 10.1007/s12649-012-9156-0
417. Knupp, D.C., C.P. Naveira-Cotta, J.V.C. Ayres, R.M. Cotta, and H.R.B. Orlande, "Identification of Thermophysical Properties of Heterogeneous Nanocomposites via Integral Transforms, Bayesian Inference and Infrared Thermography", **7th International Conference on Inverse Problems in Engineering, ICIPE**, Paper #41, pp.244-250, Orlando, Florida, USA, May 4-6, 2011. ISBN-13: 978-0615471006 <https://books.google.com.br/books?id=8c5ajwEACAAJ&dq=bibliogroup:%22Inve>

rse+problems+in+science+%26+engineering%22&hl=en&sa=X&ved=0ahUKEwj
CoLzPsf_pAhUPJrkGHYAuDU8Q6AEIJzAA

418. Abreu, L.A., H.R.B. Orlande, C.P. Naveira-Cotta, J.N.N. Quaresma, R.M. Cotta, J. Kaipio, and Ville Kolehmainen, "Identification of Contact Failures in Multi-Layered Composites", Proc. of the **ASME 2011 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, IDETC/CIE 2011**, Paper no.47511, Vol. 2, Parts A & B, pp.479-487, Washington, DC, USA, August 29-31, 2011. doi:10.1115/DETC2011-47511
419. Knupp, D.C., C.P. Naveira-Cotta, J.V.C. Ayres, R.M. Cotta, and H.R.B. Orlande, "Theoretical-Experimental Analysis of Heat Transfer in Nanocomposites Via Integral Transforms and Infrared Thermography", **ICHMT Int. Symposium on Thermal and Materials Nanoscience and Nanotechnology, TMNN-2011**, Antalya, Turkey, May-June, pp.1-8, 2011. doi:10.1615/ICHMT.2011.TMNN-2011.20
420. Cerqueira, I.G., T.C. Carvalho, J.S. Nunes, and R.M. Cotta, "Experiments on Laminar Forced Convection of Nanofluids and Modeling with Heat Losses and Temperature Dependent Thermophysical Properties", **21st International Congress of Mechanical Engineering, COBEM-2011**, Paper # COB06392, pp.1-10, ABCM, Natal, RN, Brazil, October 2011. <http://abcm.org.br/app/webroot/anais/cobem/2011/PDF/241602.pdf>
421. Monteiro, E.R., J.N.N. Quaresma, and R.M. Cotta, "Integral Transformation of Multidimensional Phase Change Problems: Computational and Physical Analysis", **21st International Congress of Mechanical Engineering, COBEM-2011**, Paper # COB06391, pp.1-10, ABCM, Natal, RN, Brazil, October 2011. <http://abcm.org.br/app/webroot/anais/cobem/2011/PDF/250901.pdf>
422. Knupp, D.C., C.P. Naveira-Cotta, and R.M. Cotta, "Theoretical Analysis of Conjugated Heat Transfer in Microchannels with a Single Domain Formulation and Integral Transforms", **21st International Congress of Mechanical Engineering, COBEM-2011**, Paper # COB06401, pp.1-10, ABCM, Natal, RN, Brazil, October 2011. <http://abcm.org.br/app/webroot/anais/cobem/2011/PDF/245701.pdf>
423. Ayres, J.V.C., D.C. Knupp, C.P. Naveira-Cotta, L.O.S. Ferreira, and R.M. Cotta, "Evaluation of Infrared Thermography Experimental Analysis of a Single Micro-Channel Heat Spreader ", **21st International Congress of Mechanical Engineering, COBEM-2011**, Paper # COB6402, pp.1-10, ABCM, Natal, RN, Brazil, October 2011. <http://abcm.org.br/app/webroot/anais/cobem/2011/PDF/>
424. Souza, J.R.B., J.L. Zotin, J.B.R. Loureiro, C.P. Naveira-Cotta, A.P. Silva Freire, and R.M. Cotta, "Conjugated Heat Transfer Analysis of Heated Pitot Tubes: Wind Tunnel Experiments, Infrared Thermography and Lumped-Differential Modeling", **21st International Congress of Mechanical Engineering, COBEM-2011**, Paper # COB24343, pp.1-10, ABCM, Natal, RN, Brazil, October 2011. <http://abcm.org.br/app/webroot/anais/cobem/2011/PDF/243403.pdf>

425. Conceição, R.S.G., E.N. Macedo, J.N.N. Quaresma, L.B. Dantas-Pereira, and R.M. Cotta, "Analysis of Drying in Capillary-Porous Solids Through the Solution of the Luikov Equations with Pressure Gradient via Integral Transforms", **21st International Congress of Mechanical Engineering, COBEM-2011**, Paper # COB17052, pp.1-10, ABCM, Natal, RN, Brazil, October 2011. <http://abcm.org.br/app/webroot/anais/cobem/2011/PDF/170502.pdf>
426. Cardoso, S.A., E.N. Macedo, J.N.N. Quaresma, C.E.A. Maneschy, and R.M. Cotta, "The Coupled Integral Equations Approach in the Modeling and Simulation of the Membrane Separation Process of Metals", **21st International Congress of Mechanical Engineering, COBEM-2011**, Paper # COB23301, pp.1-10, ABCM, Natal, RN, Brazil, October 2011. <http://abcm.org.br/app/webroot/anais/cobem/2011/PDF/233001.pdf>
427. Silva, J.J.G., E.N. Macedo, J.N.N. Quaresma, and R.M. Cotta, "Hybrid Integral Transform Solution for MHD Natural Convection in Cavities", **21st International Congress of Mechanical Engineering, COBEM-2011**, Paper # COB17053, pp.1-10, ABCM, Natal, RN, Brazil, October 2011. <http://abcm.org.br/app/webroot/anais/cobem/2011/PDF/170503.pdf>
428. Cerqueira, I.G., C.A.A. Mota, J.S. Nunes, R.M. Cotta, A. Balbo, and C.A. Achete, "Experiments and Simulations of Laminar Forced Convection with Water-Alumina Nanofluids in Circular Tubes", **Heat Transfer Eng.**, Vol.34, nos.5-6, pp.447-459, 2013. doi:10.1080/01457632.2012.722433
429. Knupp, D.C., C.P. Naveira-Cotta, H.R.B. Orlande, and R.M. Cotta, "Experimental Identification of Thermophysical Properties in Heterogeneous Materials with Integral Transformation of Temperature Measurements from Infrared Thermography", **Exp. Heat Transfer**, V.26, pp. 1-25, 2013. doi: 10.1080/08916152.2011.631079
430. Knupp, Diego C., Carolina P. Naveira-Cotta, and Renato M. Cotta, "Theoretical Analysis of Conjugated Heat Transfer with a Single Domain Formulation and Integral Transforms", **Int. Comm. Heat & Mass Transfer**, V.39, no.3, pp.355-362, 2012. doi: 10.1016/j.icheatmasstransfer.2011.12.012
431. Knupp, Diego C., Carolina P. Naveira-Cotta, João V. C. Ayres, Renato M. Cotta and Helcio R. B. Orlande, "Theoretical-Experimental Analysis of Heat Transfer in Nonhomogeneous Solids Via Improved Lumped Formulation, Integral Transforms and Infrared Thermography", **Int. J. Thermal Sciences**, V.62, pp.71-84, 2012. doi: 10.1016/j.ijthermalsci.2012.01.005
432. Basto, R.L.Q., N. S. Amorim, E.R. Monteiro, J.N.N. Quaresma, R.M. Cotta, M. A. von Krüger, and W.C.A. Pereira, "Evaluation of Heating Patterns Generated by Therapeutic Ultrasound Insonation in Muscle Phantoms", **Pan American Health Care Exchanges, PAHCE 2011**, Article # 5871946, pp. 445, Rio de Janeiro, March 28-April 1, 2011. doi: 10.1109/PAHCE.2011.5871946

433. Knupp, Diego C., Carolina P. Naveira-Cotta, and Renato M. Cotta, "Conjugated Heat Transfer in Micro-Channels with a Single Domain Formulation and Integral Transforms", Paper # MNHMT2012-75287, **Proc. of the ASME 2012 3rd Micro/Nanoscale Heat & Mass Transfer International Conference**, pp. 799-808. Atlanta, GA, USA, March 3-6, 2012. doi: 10.1115/MNHMT2012-75287
434. Knupp, D.C., C.P. Naveira-Cotta, J.V.C. Ayres, H.R.B. Orlande, and R.M. Cotta, "Space-Variable Thermophysical Properties Identification in Nanocomposites via Integral Transforms, Bayesian Inference and Infrared Thermography", **Inverse Problems in Science & Eng.**, V.20, no.5, pp.609-637, 2012. doi: 10.1080/17415977.2012.695358
435. Orlande, H. R. B., H. F. Campos Velho, S. T. R. de Pinho, G. Dulikravich, R. M. Cotta, and S. H. da Cunha Neto, "State Estimation Problem for Tumor Size Monitoring", **The 6th Int. Conf. Inverse Problems: "Modeling and Simulation"**, IPMS, Antalya, Turkey, May 21-26, 2012. <http://www.ipms-conference.org/ipms2012/program.pdf>
436. Knupp, Diego C., Carolina P. Naveira-Cotta, and Renato M. Cotta, "Conjugated Convective-Conductive Heat Transfer in Micro Channels on Polymeric Nanocomposite Substrate", **23rd Int. Conf. on Theoretical and Applied Mechanics, XXIII ICTAM**, FM05 Convection, Paper # FM05-40, pp.1-4, 19-24 August 2012, Beijing, China. <https://www.ictam2012.org/wordpress/wp-content/uploads/2012/08/ICTAM-2012-Technical-Program-new.pdf>
437. Knupp, Diego C., Carolina P. Naveira-Cotta, and Renato M. Cotta, "Conjugated Convective-Conductive Heat Transfer in Micro Channels with Upstream Region Influence", Proc. of the **6th Int. Symposium on Advances in Computational Heat Transfer, CHT-12, ICHMT**, pp.929-948, July 1st-6th, Bath, UK, 2012. doi: 10.1615/ichmt.2012.cht-12.570
438. Cerqueira, I.G.S., L.F. Lage, R.M. Cotta, J.N.N. Quaresma, H.R.B. Orlande, and E. de Robertis, "Experimental-Theoretical Analysis of Laminar Forced Convection of Water-Silica Nanofluids in a Circular Tube", **VII National Congress of Mechanical Engineering, CONEM 2012**, Paper # CONEM2012-2023, pp.1-11, São Luis, MA, Brasil, pp.1-10, 31st July-3rd August 2012. <https://www.uema.br/imagens-noticias/files/CONEM.pdf>
439. Lisboa, K.M., J.R.B. de Souza, R.M. Cotta, and C.P. Naveira-Cotta, "Transient Conjugated Heat Transfer in External Compressible Laminar Flow over Plates with Internal Heat Generation", **VII National Congress of Mechanical Engineering, CONEM 2012**, Paper # CONEM2012-2030, pp.1-10, São Luis, MA, Brasil, 31st July-3rd August 2012. <https://www.uema.br/imagens-noticias/files/CONEM.pdf>
440. Calil, A.L.O., C.P. Naveira-Cotta, D.C. Knupp, R.M. Cotta, J.S. Nunes, and M. Rebay, "Forced Convection Analysis in Mini- and Micro-Tubes via Infrared Thermography with Microscopic Lens", **14th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2012**, Paper # 354, pp.1-4, Rio de Janeiro, RJ, Brazil, November, 2012.

<http://abcm.org.br/app/webroot/anais/encit/2012/links/pdf/ENCIT2012-354.pdf>

441. Knupp, D.C., R.M. Cotta, C.P. Naveira-Cotta, and S. Kakaç, "Theoretical Investigation of Transient Conjugated Convective-Conductive Heat Transfer in Micro-Channels", **14th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2012**, Paper # 309, pp.1-8, Rio de Janeiro, RJ, Brazil, November, 2012.
<http://abcm.org.br/app/webroot/anais/encit/2012/links/pdf/ENCIT2012-309.pdf>
442. Souza, J.R.B., K.M. Lisboa, I.G. Cerqueira, C.P. Naveira-Cotta, R.M. Cotta, and J.L.Z. Zotin, "Conjugated Heat Transfer Models for Heated Aeronautical Pitot Tubes: Experimental Validation with A4 Skyhawk Flight Tests ", **14th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2012**, Paper # 342, pp.1-8, Rio de Janeiro, RJ, Brazil, November, 2012.
<http://abcm.org.br/app/webroot/anais/encit/2012/links/pdf/ENCIT2012-342.pdf>
443. Sousa, I.F., R.M. Cotta, C.P. Naveira-Cotta, M. Lachi, and M. Rebay, "Experimental-Theoretical Analysis of Solar Dryers with Infrared Thermography and Integral Transforms", **14th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2012**, Paper #334, pp.1-8, Rio de Janeiro, RJ, Brazil, November, 2012.
<http://abcm.org.br/app/webroot/anais/encit/2012/links/pdf/ENCIT2012-334.pdf>
444. Cotta, R.M., D.C. Knupp, C.P. Naveira-Cotta, L.A. Sphaier, and J.N.N. Quaresma, " The Unified Integral Transforms (UNIT) Algorithm with Total and Partial Transformation:- A Tribute to Prof. Mikhail D. Mikhailov ", Invited Keynote Lecture, **14th Brazilian Congress of Thermal Sciences and Engineering, ENCIT 2012**, pp.1-14, Rio de Janeiro, RJ, Brazil, November, 2012.
http://abcm.org.br/app/webroot/anais/encit/2012/links/program/keynote_cotta.html
445. Knupp, D.C., C.P. Naveira-Cotta, and R.M. Cotta, "Conjugated Convection-Conduction Analysis in Micro-Channels with Axial Diffusion Effects and a Single Domain Formulation", **ASME J. Heat Transfer**, Special Issue on Micro/Nanoscale Heat and Mass Transfer, V.135, no.9, pp. 091401- 091411, 2013. doi: 10.1115/1.4024425
446. Tavman, I.H., A. Turgut, H.M. Fonseca, H.R.B. Orlande, R.M. Cotta, and M. Magalhães, "Thermal Diffusivity Measurements of Conductive Nanocomposites Based on Eva Copolymer Filled with Expanded and Unexpanded Graphite", **Int. J. Thermophysics**, V.34, no.12, pp.2297-2306, 2013. doi 10.1007/s10765-012-1231-z
447. Abreu, L.A., H.R.B. Orlande, J. Kaipio, V. Kolehmainen, R.M. Cotta, and J.N.N. Quaresma, "Identification of Contact Failures in Multi-Layered Composites with the Markov Chain Monte Carlo Method", **ASME J. Heat Transfer**, V.136, no.10, pp.101302-311, 2014. doi:10.1115/1.4027364
448. Cotta, R.M., D.C. Knupp, C. P. Naveira-Cotta, L.A. Sphaier, and J.N.N. Quaresma, "Unified Integral Transforms Algorithm for Solving Multidimensional

- Nonlinear Convection-Diffusion Problems", **Num. Heat Transfer, part A - Applications**, V.63, pp.1-27, 2013. doi: 10.1080/10407782.2013.756763
449. Costa, J.M.J., H.R.B. Orlande, H.F. Campos Velho, S.T.R. de Pinho, G. Dulikravich, R.M. Cotta, and S. H. da Cunha Neto, "Estimation of Tumor Size Evolution Using Bayesian Filters", **J. Computational Biology**, V.22, no.7, pp.1-17, 2015. doi:10.1089/ cmb.2014.0003
450. Knupp, D.C., R.M. Cotta, and C.P. Naveira-Cotta, " Heat Transfer in Microchannels with Upstream–Downstream Regions Coupling and Wall Conjugation Effects", **Num. Heat Transfer, part B - Fundamentals**, V.64, pp.365-387, 2013. doi: 10.1080/10407790. 2013.810535.
451. Knupp, D.C., R.M. Cotta, and C.P. Naveira-Cotta, "Conjugated Heat Transfer in Heat Spreaders with Micro-Channels", Proc. of the **ASME 2013 Summer Heat Transfer Conference, HT2013**, Paper # HT2013-17818, 10p., Minneapolis, MN, USA, July 14-19, 2013. doi: 10.1115/HT2013-17818
452. El Wakil, N., R.M. Cotta, and J. Padet, "Etude d'un Regime Transitoire de Convection Mixte Laminaire en Géométrie Plane", **XIème Colloque Interuniversitaire Franco-Québécois sur la Thermique des Systèmes**, pp.1-6, 3-5 Juin, Reims, France, 2013. ISBN: 978-2-915271-65-2
<http://www.sudoc.fr/170231534>
453. Cotta, R.M., D.C. Knupp, and C.P. Naveira-Cotta, "From Analytical Heat Transfer towards Unified Hybrid Solutions in Heat and Fluid Flow", Proc. of the **13th UK National Heat Transfer Conference**, (Invited Keynote Lecture), Paper # UKHTC2013/K4, pp.1-8, Imperial College, London, England, September 2nd-3rd, 2013. ISBN 978-0-9572298-5-3 https://www.ukhtc2013.co.uk/wp-content/uploads/2014/01/UKHTC2013_Proceedings.pdf
454. Lisboa, K.M., J.R.B. Souza, and R.M. Cotta, "Thermal Analysis of an Aeronautical Pitot Probe with Anti-Icing System: Modeling, Simulation and Parametric Studies", Proc. of the **22nd International Congress of Mechanical Engineering - COBEM 2013**, Paper #1670, pp.1-12, Ribeirão Preto, SP, Brazil, November 3-7, 2013. ISSN 2176-5480
<https://abcm.org.br/anais/cobem/2013/PDF/1670.pdf>
455. Knupp, D.C., C.P. Naveira-Cotta, H.M. Fonseca, H.R.B. Orlande, R.M. Cotta, and O. Fudym, "Thermal Characterization of Non-homogeneous Media", **Modelling and Simulation of Diffusive Processes**, Springer Series:- Simulation Foundations, Methods and Applications, S.K. Basu & N. Kumar, eds., Chapter 6, pp.119-139, 2014. doi: 10.1007/978-3-319-05657-9_6
456. Moreira, P.H.S., M.Th. van Genuchten, H.R.B. Orlande, and R.M. Cotta, "Bayesian Estimation of the Hydraulic and Solute Transport Properties of a Small-Scale Unsaturated Soil Column", **J. of Hydrology & Hydromechanics**, V. 64, pp.1-15 , 2016. doi: 10.1515/johh-2016-0002.

457. Cotta, R.M., D.C. Knupp, C.P. Naveira-Cotta, L.A. Sphaier, and J.N.N. Quaresma, "The Unified Integral Transforms (UNIT) Algorithm with Total and Partial Transformation", **Comput. Thermal Sciences**, V.6, no.6, pp.507-524, 2014. doi: 10.1615/ComputThermalScien.2014008663
458. Knupp, D.C., R.M. Cotta, C.P. Naveira-Cotta, and S. Kakaç, "Transient Conjugated Heat Transfer in Microchannels: Integral Transforms with Single Domain Formulation", **Int. J. Thermal Sciences**, V.88, pp.248-257, 2015. doi: 10.1016/j.ijthermalsci.2014.04.017
459. Souza, J.R.B., K.M. Lisboa, I.G. Cerqueira, C.P. Naveira-Cotta, R.M. Cotta, and J.L.Z. Zotin, "Conjugated Heat Transfer Analysis of Heated Aeronautical Pitot Probes with Flight Tests Experimental Validation", **Heat Transfer Eng**, V.36, pp.991-1000, 2015. doi: 10.1080/01457632.2015.972780
460. Padet, J., R.M. Cotta, E.C. Mladin, and C. Padet, "Mixed Thermal Convection: Fundamental Issues and Analysis of the Planar Case", **Annals of the Brazilian Academy of Sciences, AABC**, V.87, no.3, pp.1-22, 2015. doi: 10.1590/0001-3765201520140254
461. Knupp, D.C., C.P. Naveira-Cotta, and R.M. Cotta, "Theoretical-Experimental Analysis of Conjugated Heat Transfer in Nanocomposite Heat Spreaders With Multiple Micro-Channels", **Int. J. Heat & Mass Transfer**, V.74, pp.306-318, 2014. doi: 10.1016/j.ijheatmasstransfer.2014.03.005
462. Knupp, D.C., C.P. Naveira-Cotta, and R.M. Cotta, "Unified Integral Transforms in Single Domain Formulation for Internal Flow Three-Dimensional Conjugated Problems", Proc. of the **15th Int. Heat Transfer Conference, IHTC Digital Library**, pp. 5867-5880, Kyoto, Japan, 10-15th August, 2014. doi: 10.1615/IHTC15.nsm.009729
463. Lisboa, K.M. and R.M. Cotta, "External Flow Conjugated Problem Analysis via Integral Transforms and Single Domain Formulation", **3rd International Conference on Computational Methods for Thermal Problems - ThermaComp2014**, pp.325-328, June 2014, Lake Bled, Slovenia. ISBN: 978-88-7431-727-1; ISSN: 23055995
464. Cotta, R.M., D.C. Knupp, and C.P. Naveira-Cotta, "Unified Integral Transforms in Conjugated Heat and Fluid Flow", Invited Plenary Lecture, **3rd International Conference on Computational Methods for Thermal Problems - ThermaComp2014**, pp.21-36, June 2014, Lake Bled, Slovenia. . ISBN: 978-88-7431-727-1; ISSN: 23055995
465. Andrade, G.J.A., H.R.B. Orlande, and R.M. Cotta, "Use of Particle Filters to Estimate Relative Air Speed in a Pitot Tube", **ICHMT Digital Library, Proc. of International Symposium on Convective Heat and Mass Transfer in Sustainable Energy, CONV-14**, pp.619-631, Kusadasi, Turkey, June 2014. doi: 10.1615/ICHMT.2014.IntSympConvHeatMassTransf.470

466. El Wakil, N., J. Padet, and R.M. Cotta, "Transient Mixed Convection in a Plane Vertical Channel", ICHMT Digital Library, Proc. of **International Symposium on Convective Heat and Mass Transfer in Sustainable Energy, CONV-14**, pp.1369-1395, Kusadasi, Turkey, June 2014. doi: 10.1615/ICHMT.2014.IntSympConvHeatMassTransf.1040
467. Cotta, R.M., D.C. Knupp, and C.P. Naveira-Cotta, "Unified Integral Transforms Algorithm for Convection-Diffusion in Irregular Geometries and Complex Configurations", Invited Keynote Lecture, ICHMT Digital Library, Proc. of **International Symposium on Convective Heat and Mass Transfer in Sustainable Energy, CONV-14**, pp.57-72, Kusadasi, Turkey, June 2014. doi: 10.1615/ICHMT.2014.IntSympConvHeatMassTransf.30
468. Padet, J., E.C. Mladin, R.M. Cotta, M. Lachi, and C. Padet, "Regards on Mixed Convection", ICHMT Digital Library, Proc. of **International Symposium on Convective Heat and Mass Transfer in Sustainable Energy, CONV-14**, pp.3-56, Kusadasi, Turkey, June 2014. doi: 10.1615/ICHMT.2014.IntSympConvHeatMassTransf.20
469. Zotin, J.L.Z., R.M. Cotta, and D.C. Knupp, "Integral Transforms with Single Domain Formulation for Conjugated Heat Transfer in Multistream Direct Contact Laminar Flows", **ENCIT 2014, 15th Brazilian Congress of Thermal Sciences and Engineering**, Paper # 215, pp.1-10, November 10-13, 2014, Belém, PA, Brazil. <https://www.abcm.org.br/anais/encit/2014/assets/file/anais/215.pdf>
470. Curi, M.F., R.M. Cotta, and J.S. Perez-Guerrero, "Alternative Integral Transforms Solution of the Transient Incompressible Navier-Stokes Equations in Primitive Variables Formulation ", **ENCIT 2014, 15th Brazilian Congress of Thermal Sciences and Engineering**, Paper # 174, pp.1-10, Belém, PA, Brazil, November 10th-13th, 2014. <https://www.abcm.org.br/anais/encit/2014/assets/file/anais/174.pdf>
471. Knupp, D.C., C. P. Naveira-Cotta, A. Renfer, M. K. Tiwari, R.M. Cotta, and D. Poulidakos, "Analysis of Conjugated Heat Transfer in Micro-Heat Exchangers via Integral Transforms and Non-Intrusive Optical Techniques", **Int. J. Num. Meth. Heat & Fluid Flow**, V.25, no.6, pp.1444-1462, 2015. doi: 10.1108/HFF-08-2014-0259
472. Knupp, D.C., R.M. Cotta, and C. P. Naveira-Cotta, "Fluid Flow and Conjugated Heat Transfer in Arbitrarily Shaped Channels via Single Domain Formulation and Integral Transforms ", **Int. J. Heat & Mass Transfer**, V.82, pp.479-489, 2015. doi: 10.1016/j.ijheatmasstransfer.2014.11.007.
473. Keley, M.M., R.A. Simão, R.M. Cotta, and C.P.N. Cotta, "Fabrication of Superhydrophobic Surfaces Via Two-Step Chemical Etching and Plasma Deposition Technique", Proc. of the **XIII Encontro da Sociedade Brasileira de Pesquisa em Materiais (SBPMat)**, João Pessoa, PB, 28 de setembro a 2 de outubro, 2014.

474. Cotta, R.M., C.P. Naveira-Cotta, and D.C. Knupp, "Integral Transforms for Convection-Diffusion in Multiscale Complex Domains". ICHMT Digital Library, Proc. of the **7th Int. Symp. on Advances in Computational Heat Transfer, CHT-15**, pp.1092, Invited Keynote Lecture, Piscataway, NJ, USA, May 2015. doi: 10.1615/ICHMT.2015.IntSympAdvComputHeatTransf.1000
475. Knupp, D.C., C.P. Naveira-Cotta, and R.M. Cotta, "Conjugated Heat Transfer in Microchannels with Slip Flow Regime via Single Domain Formulation and Integral Transforms". ICHMT Digital Library, Proc. of the **7th Int. Symp. on Advances in Computational Heat Transfer, CHT-15**, pp.1093-1106, Piscataway, NJ, USA, May 2015. doi: 10.1615/ICHMT.2015.IntSympAdvComputHeatTransf.1010
476. Zotin, J.L.Z., D.C. Knupp, and R.M. Cotta, "Analytical-Numerical Solutions for Conjugated Heat Transfer in Multistream Microsystems", in: **Microscale and Nanoscale Convective Heat Transfer: Concepts, Analysis, and Applications**, M. Rebay, S. Kakaç, and R.M. Cotta, Eds., Chapter 13, pp.349-368, CRC Press, Boca Raton, 2016. doi: 10.1201/b19261-14
477. Cotta, R.M., C.P. Naveira-Cotta, and D.C. Knupp, "Nonlinear Eigenfunction Expansions for the Solution of Nonlinear Diffusion Problems", Proc. of the **1st Thermal and Fluid Engineering Summer Conference**, ASTFE Digital Library, Paper no. TFESC-13652, pp.1103-1116, New York, August 9-12, 2015. doi: 10.1615/TFESC1.fnd.013652
478. Cotta, R.M., K.M. Lisboa, J.R.B. de Souza, A.A. Bigdoli, J.B.R. Loureiro, C.P. Naveira-Cotta, and A.P. Silva Freire, "Experimental-Theoretical Analysis of Conjugated Heat Transfer in Aeronautical Sensors and Structures with Anti-Icing Systems", Invited Plenary Lecture, Proc. of the **9th Minsk International Seminar "Heat Pipes, Heat Pumps, Refrigerators, Power Sources"**, Minsk, Belarus, 07-10 September, vol.1, pp.47-68, 2015. ISBN:978-985-6456-98-8
http://porousmedialab.by/seminar/pdf4/IX_Minsk_International_Seminar_Vol.1-Vol.2.pdf
479. Allahyarzadeh, A.B., R.M. Cotta, J.R.B. Souza, and K.M. Lisboa, "Thermal Analysis of Heated Pitot Probes in Atmospheric Conditions of Ice Accretion", Proc. of the **23rd International Congress of Mechanical Engineering - COBEM 2015**, 10p., Rio de Janeiro, RJ, Brazil, December 6th-10th, 2015. ISSN: 2176-5480; doi: 10.20906/cps/cob-2015-2691
<https://abcm.org.br/anais/cobem/2015/PDF/COB-2015-2691.pdf>
480. Cotta, R.M., C.P. Naveira-Cotta, and D.C. Knupp, "Improved Eigenfunction Expansions in Diffusion Problems with Multiscale Space Variable Coefficients", Proc. of the **23rd International Congress of Mechanical Engineering - COBEM 2015**, 10p., Rio de Janeiro, RJ, Brazil, December 6th-10th, 2015. ISSN: 2176-5480;doi:10.20906/CPS/COB-2015-2714
<https://abcm.org.br/anais/cobem/2015/PDF/COB-2015-2714.pdf>
481. Ramos, G., D.C. Knupp, C.P. Naveira-Cotta, A.J. Silva Neto, and R.M. Cotta, "Integral Transforms and Bayesian Inference Applied to the Inverse Analysis of

Conjugated Heat Transfer Problems of Forced Convection with Slip Flow in Parallel Plates”, Proc. of the **XVIII ENMC - Encontro Nacional de Modelagem Computacional**, pp.1-10, Salvador, BA, October 13th-16th, 2015.

- 482.** Souza, J.R.B., K.M. Lisboa, A.A. Bigdoli, G.A. Andrade, J.B.R. Loureiro, C.P. Naveira-Cotta, A.P. Silva Freire, H.R.B. Orlande, G.A.L. Silva, and R.M. Cotta, “Thermal Analysis of Anti-Icing Systems in Aeronautical Velocity Sensors and Structures”, **J. Braz. Society of Mech. Sciences & Eng.**, Invited Paper, 35th Anniversary Special Issue, V.38, no.5, pp.1489-1509, 2016. doi: 10.1007/s40430-015-0449-7
- 483.** Cotta, R.M., C.P. Naveira-Cotta, and D.C. Knupp, “Nonlinear Eigenvalue Problem in the Integral Transforms Solution of Convection-Diffusion with Nonlinear Boundary Conditions”, **Int. J. Num. Meth. Heat & Fluid Flow**, Invited Paper, 25th Anniversary Special Issue, V.26, nos.3&4, pp.767-789, 2016. doi: 10.1108/HFF-08-2015-0309
- 484.** Pinheiro, L.C., R.M. Cotta, Su Jian, "Simplified Thermal-Hydraulic Analysis of Single Phase Natural Circulation Circuit with Two Heat Exchangers", **2015 International Nuclear Atlantic Conference - INAC 2015**, pp.1-14, Associação Brasileira de Energia Nuclear, ABEN, São Paulo, SP, Brazil, October 4-9, 2015. ISBN: 978-85-99141-06-9
https://inis.iaea.org/collection/NCLCollectionStore/_Public/46/135/46135091.pdf?r=1&r=1
- 485.** Cotta, R.M., C.P. Naveira-Cotta, D.C. Knupp, J.L.Z. Zotin, and P.C. Pontes, "Eigenfunction Expansions for Coupled Nonlinear Convection-Diffusion Problems in Complex Physical Domains", Invited Plenary Lecture, **7th European Thermal Sciences Conference, EURO THERM 2016**, Krakow, Poland, June 2016. ISBN: 978-83-7464-868-4
- 486.** Cotta, R.M., C.P. Naveira-Cotta, and D.C. Knupp, “Enhanced Eigenfunction Expansions in Convection-Diffusion Problems with Multiscale Space Variable Coefficients”, **Num. Heat Transfer, part A - Applications**, V.70, no.5, pp.492-512, 2016. doi: 10.1080/10407782.2016.1177342
- 487.** Zotin, J.L.Z., D.C. Knupp, and R.M. Cotta, “Conjugated Heat Transfer in Complex Geometries via Total Integral Transformation and Single Domain Formulation”, **4th International Conference on Computational Methods for Thermal Problems - ThermaComp2016**, pp.1-4, Atlanta, USA, July 2016. ISBN: 978-88-7431-828-5
http://www.thermacomp.com/uploads/Proceedings_ThermaComp2016.pdf
- 488.** Cotta, R.M., D.C. Knupp, and C.P. Naveira-Cotta, "Integral Transforms in Linear or Nonlinear Convection-Diffusion Through Convective Eigenvalue Problems", **24th Int. Conf. on Theoretical and Applied Mechanics, XXIV ICTAM**, FM05 – Convection, Vol.2, Paper # PO.FM05-1.03.16, pp.751-753, Montreal, Canada, August 21-26th, 2016.
https://iutam.org/wp-content/uploads/2017/02/ICTAM_Proceedings_Vol_2.pdf

489. Knupp, D.C., F.S. Mascouto, L.A.S. Abreu, C.P. Naveira-Cotta, and R.M. Cotta, "Conjugated Heat Transfer with Slip Flow in Microchannels: Single Domain Integral Transforms with Enhanced Convergence", **ENCIT 2016, 16th Brazilian Congress of Thermal Sciences and Engineering**, Vitória, ES, Brazil, November 7-10th, 2016. doi: 10.26678/abcm.encit2016.cit2016-0228
490. Cotta, R.M., C.P. Naveira-Cotta, D.C. Knupp, J.L.Z. Zotin, and P.C. Pontes, "Eigenfunction Expansions for Coupled Nonlinear Convection-Diffusion Problems in Complex Physical Domains", **Journal of Physics: Conf. Series**, V.745, no.2, 022001, pp.1-21, 2016. doi:10.1088/1742-6596/745/2/022001
491. Cotta, R.M., C.P. Naveira-Cotta, and D.C. Knupp, "Convective Eigenvalue Problems for Convergence Enhancement of Eigenfunction Expansions in Convection-Diffusion Problems", **ASME J. Thermal Science and Eng. Appl.**, V.10, no.2, pp.021009 (12 pages), 2017. doi: 10.1115/1.4037576
492. Padet, J., R.M. Cotta, and J. Su, "Refroidissement des Piscines Nucléaires par Convection Naturelle: Étude Analytique de Faisabilité", **XIIIème Colloque Interuniversitaire Franco-Québécois sur la Thermique des Systèmes, CIFQ2017**, ART-05-09, pp.1-6, LUSAC Saint-Lô, France, May 22-24th, 2017; also, In: **Thermique des Systemes - Efficacité et Enjeux**, H. Louahlia & M. Marion, Eds., p.348, EUE, 2018. ISBN: 620227204X
493. Zotin, J.L.Z., D.C. Knupp, and R.M. Cotta, "Conjugated Heat Transfer in Complex Channel-Substrate Configurations: Hybrid Solution with Total Integral Transformation and Single Domain Formulation", **Proc. of ITherm 2017 - Sixteenth Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems**, Paper #435, pp. 184–191, Orlando, FL, USA, May 30th –June 2nd, 2017. ISBN: 978-1-5090-2994-5; doi: 10.1109/ITHERM.2017.7992470
494. Pontes, P.C., A.P. Almeida, C.P. Naveira-Cotta, and R.M. Cotta, "Nonlinear Eigenvalue Problem Approach in the Integral Transforms Analysis of Metal Separation by Polymeric Diffusive Membranes", **Proc. of CHT-17, ICHMT International Symposium on Advances in Computational Heat Transfer**, Paper CHT-17-253, pp. 1325-1339, Napoli, Italy, May 28th-June 1st, 2017. doi: 10.1615/ICHMT.2017.CHT-7.1390
495. Matt, C.F.T., J.N.N. Quaresma, and R.M. Cotta, "Analysis of Magnetohydrodynamic Natural Convection in Closed Cavities through Integral Transforms", **Int. J. Heat & Mass Transfer**, V.113, pp.502-513, 2017. doi: 10.1016/j.ijheatmasstransfer. 2017.05.043
496. Zhang, S., M. K. Tiwari, S. Balabani, C. P. Naveira-Cotta, and R. M. Cotta, "Residence Time Control in Micromixers Based on Vortex Shedding", **9th World Conference on Experimental Heat Transfer, Fluid Mechanics and Thermodynamics**, Iguaçu Falls, Brazil, June 12-15th, 2017. <http://eventus.com.br/exhft2017/session-6.html>

497. Lisboa, K.M., J. Marschewski, N. Ebejer, P. Ruch, R.M. Cotta, B. Michel, and D. Poulikakos, Mass Transport Enhancement in Redox Flow Batteries Using Wavy-wall Fluidic Networks, **J. Power Sources**, V.359, pp.322-331, 2017. doi: 10.1016/j.jpowsour.2017.05.038
498. Cotta, R.M., C.P. Naveira-Cotta, D.C. Knupp, J.L.Z. Zotin, P.C. Pontes, and A.P. Almeida, "Recent Advances in Computational-Analytical Integral Transforms for Convection-Diffusion Problems", **Heat & Mass Transfer**, Invited Paper, V.54, pp.2475–2496, 2018. doi: 10.1007/s00231-017-2186-1
499. d'Egmont, P.R., V.Z. Martins, C.P. Naveira-Cotta, M.K. Tiwari, S. Balabani, F.P. Duda, and R.M. Cotta, " Computational Analysis of Vortex Shedding Past a Pin Fin Confined in a Microchannel", Proc. of the **24th International Congress of Mechanical Engineering - COBEM 2017**, Paper # COBEM-2017-2161, 9p., Curitiba, PR, Brazil, December 3rd-8th, 2017. doi: 10.26678/abcm.cobem2017.cob17-2161
500. Almeida, A.P., C.P. Naveira-Cotta, and R.M. Cotta, "Integral Transformation of Multidimensional Heat Conduction Problems in Heterogeneous Media", Proc. of the **24th International Congress of Mechanical Engineering - COBEM 2017**, Paper# COBEM-2017-1906, 10p., Curitiba, PR, Brazil, December 3rd-8th, 2017. doi: 10.26678/abcm.cobem2017.cob17-1906
501. Sphaier, L.A., J. Su, and R.M. Cotta, "Macroscopic Heat Conduction Formulation", In: **Handbook of Thermal Science and Engineering**, Vol.1, Chapter 1, pp.3-60, Francis A. Kulacki et al., Eds., Springer International Publishing, 2017. doi: 10.1007/978-3-319-26695-4_3
502. Cotta, R.M., D.C. Knupp, and J.N.N. Quaresma "Analytical Methods in Heat Transfer", In: **Handbook of Thermal Science and Engineering**, Vol.1, Chapter 2, pp.61-126, Francis A. Kulacki et al., Eds., Springer International Publishing, 2017. doi: 10.1007/978-3-319-26695-4_2
503. Dourado, E.R.G., R.M. Cotta, and Su Jian, "Transient Heat Conduction Analysis in a Simplified PWR Model by an Improved Lumped Parameter Approach", **2017 International Nuclear Atlantic Conference - INAC 2017**, pp.1-10, Associação Brasileira de Energia Nuclear, ABEN, Belo Horizonte, MG, Brazil, October 22-27th, 2017. ISBN: 978-85-99141-07-6
https://inis.iaea.org/collection/NCLCollectionStore/_Public/49/009/49009608.pdf?r=1&r=1
504. Reis, M.C., L.A. Sphaier, L.S. de B. Alves. R.M. Cotta, "Approximate Analytical Methodology for Calculating Friction Factors in Flow through Polygonal Cross Section Ducts", **Journal of the Brazilian Society of Mechanical Sciences and Engineering**, V.40:76, pp.1-11, 2018. doi: 10.1007/s40430-018-1019-6
505. Knupp, D.C., F.S. Mascouto, L.A.S. Abreu, C.P. Naveira-Cotta, and R.M. Cotta, "Conjugated Heat Transfer in Circular Microchannels with Slip Flow and Axial Diffusion Effects", **Int. Comm. Heat & Mass Transfer**, V. 91, pp.225-233, 2018. doi: 10.1016/j.icheatmasstransfer.2017.12.003

506. Lisboa, K.M., and R.M. Cotta, "Hybrid Integral Transforms for Flow Development in Ducts Partially Filled with Porous Media", **Proc. Royal Society A - Mathematical, Physical and Eng. Sciences**, V. 474, pp.1-20, 2018. doi: 10.1098/rspa.2017.0637
507. Pontes, P.C., A.P. Almeida, R.M. Cotta, and C.P. Naveira-Cotta, "Analysis of Mass Transfer in Hollow-Fiber Membrane Separator via Nonlinear Eigenfunction Expansions", **Multiphase Science and Technology**, V.30, nos.2-3, pp.165-186, 2018. doi: 10.1615/MultScienTechn.2018023739
508. Lamien, B., H.R.B. Orlande, L.A. Bermeo Váron, R.L.Q. Basto, G.E. Eliçabe, D.S. Santos, and R.M. Cotta, "Estimation of the Temperature Field in Hyperthermia Experiments with a Phantom", **Int. J. of Hyperthermia**, V.35, no.1, pp.279-290, 2018. doi: 10.1080/02656736.2018.1496283
509. Lisboa, K.M., and R.M. Cotta, "On the Mass Transport in Membraneless Flow Batteries of Flow-by Configuration", **Int. J. Heat & Mass Transfer**, V.122, pp.954-966, 2018. doi: 10.1016/j.ijheatmasstransfer.2018.02.002
510. Abreu, L.A.S., H. R. B. Orlande, M. J. Colaço, J. Kaipio, V. Kolehmainen, and R.M. Cotta, "Detection of Contact Failures with the Markov Chain Monte Carlo Method by Using Integral Transformed Measurements", **Int. J. Thermal Sciences**, V.132, pp.486-497, 2018. doi: 10.1016/j.ijthermalsci.2018.06.006
511. Almeida, A.P., C.P. Naveira-Cotta, and R.M. Cotta, "Integral Transforms for Transient Three-dimensional Heat Conduction in Heterogeneous Media with Multiple Geometries and Materials", Paper # IHTC16-24583, Proc. of the **16th International Heat Transfer Conference – IHTC16**, Beijing, China, August 10th-15th, pp. 1859-1866, 2018. doi:10.1615/IHTC16.cms.024583
512. Lisboa, K.M., J. Su, and R.M. Cotta, "Single Domain Integral Transforms Analysis of Natural Convection in Cavities Partially Filled with Heat Generating Porous Medium", **Num. Heat Transfer, Part A – Applications**, V.74, no.3, pp.1068-1086, 2018. doi: 10.1080/10407782.2018.1511141
513. Cotta, R.M., J. Su, A.C. Pontedeiro, and K.M. Lisboa, "Computational-Analytical Integral Transforms and Lumped-Differential Formulations: Benchmarks and Applications in Nuclear Technology", Special Lecture, 9th Int. Symp. on Turbulence, Heat and Mass Transfer, THMT-ICHMT, Rio de Janeiro, July 10th-13th, in: **Turbulence, Heat and Mass Transfer 9**, pp.129-144, Eds. A.P. Silva Freire et al., Begell House, New York, 2018. doi: 10.1615/THMT-18.80
514. Cotta, R.M., K.M. Lisboa, M.F. Curi, S. Balabani, J.N.N. Quaresma, and J.S. Perez-Guerrero, "Computational-Analytical Integral Transforms in Transport Phenomena with Navier-Stokes Formulations", Invited Plenary Lecture, Proc. of the **10th Minsk International Seminar "Heat Pipes, Heat Pumps, Refrigerators, Power Sources"**, pp.144-161, Minsk, Belarus, September 10th-13th, 2018. <http://www.porousmedialab.by/seminar/The%20jubilee%20Conference%20X%20>

Minsk%20International%20Seminar%20Heat%20Pipes%20Heat%20Pumps%20Refrigerators%20Power%20Sources.pdf

515. Knupp, D.C., R.M. Cotta, C.P. Naveira-Cotta, and I.G.S. Cerqueira, “Conjugated Heat Transfer via Integral Transforms: Single Domain Formulation, Total and Partial Transformation, and Convective Eigenvalue Problems”, Proc. of the **10th Minsk International Seminar “Heat Pipes, Heat Pumps, Refrigerators, Power Sources”**, pp.171-178, Minsk, Belarus, September 10th-13th, 2018. <http://www.porousmedialab.by/seminar/The%20jubilee%20Conference%20X%20Minsk%20International%20Seminar%20Heat%20Pipes%20Heat%20Pumps%20Refrigerators%20Power%20Sources.pdf>
516. Silva, G.R., D.C. Knupp, C.P. Naveira-Cotta, R.M. Cotta, and A.J. Silva Neto, “Aplicação da Técnica da Transformada Integral Generalizada na Análise Direta e Inversa do Problema Conjugado de Transferência de Calor por Convecção Forçada em Placas Paralelas via Inferência Bayesiana”, Proc. of the **XXI ENMC - Encontro Nacional de Modelagem Computacional**, Paper #196, pp.1-10, Búzios, RJ, Oct. 8th-11th, 2018. <http://nbcgib.uesc.br/enmc2018/templates/ProgFinalSessTecOra2.pdf>
517. Costa Jr., J.M., P.C. Pontes, C.P. Naveira-Cotta, M.K. Tiwari, S. Balabani, R.M. Cotta, “Hybrid Approach in Microscale Transport Phenomena: Application to Biodiesel Synthesis in Micro-reactors”, in: **Innovations in Sustainable Energy and Cleaner Environment**, Green Energy and Technology, Eds. Ashwani K. Gupta et al., Springer-Verlag, Chapter 20, pp.457-486, 2019. doi: 10.1007/978-981-13-9012-8_20
518. Lisboa, K.M., J. Su, and R.M. Cotta, “Vector Eigenfunction Expansion in the Integral Transform Solution of Transient Natural Convection”, **Int. J. Num. Meth. Heat & Fluid Flow**, V.29, pp. 2684-2708, 2019. doi: 10.1108/HFF-10-2018-0543
519. Cotta, R.M., K.M. Lisboa, M.F. Curi, S. Balabani, J.N.N. Quaresma, J.S. Perez-Guerrero, E.N. Macedo, and N.S. Amorim, “A Review of Hybrid Integral Transform Solutions in Fluid Flow Problems with Heat or Mass Transfer and under Navier-Stokes Equations Formulations”, **Num. Heat Transfer, Part B - Fundamentals**, V.76, no.2, pp.60-87, 2019. doi: 10.1080/10407790.2019.1642715
520. Lisboa, K.M., and R.M. Cotta, “Analysis of the Mass Transport in Corrugated Membraneless Flow Batteries”, **Appl. Math. Modelling**, V.77, Part 2, pp.1512-1530, 2020. doi: 10.1016/j.apm.2019.09.001
521. Cotta, R.M., D.C. Knupp, K.M. Lisboa, C.P. Naveira-Cotta, J.N.N. Quaresma, J.L.Z. Zotin, and H.K. Miyagawa, “Integral Transform Benchmarks of Diffusion, Convection-Diffusion, and Conjugated Problems in Complex Domains”, **50 Years of CFD in Engineering Sciences - A Commemorative Volume in Memory of D. Brian Spalding**, Ed. A.K. Runchal, Chapter 20, pp.719-750, Springer-Verlag, 2020. ISBN 978-981-15-2670-1 doi: 10.1007/978-981-15-2670-1_20
522. Lisboa, K.M., J.R.B. Souza, C.P. Naveira-Cotta, and R.M. Cotta, “Heat and Mass Transfer in Hollow-Fiber Modules for Direct Contact Membrane Distillation:

Integral Transforms Solution and Parametric Analysis”, **Int. Comm. Heat & Mass Transfer**, V.109, p. 104373, pp.1-7, Dec. 2019.
doi: 10.1016/j.icheatmasstransfer.2019.104373

523. Cotta, R.M., K.M. Lisboa, P.C. Pontes, C.P. Naveira-Cotta, J.N.N. Quaresma, E.N. Macedo, “Hybrid Integral Transforms in Nonlinear Heat and Mass Transfer”, Proc. of the **6th Int. Conf. on Thermophysical and Mechanical Properties of Advanced Materials, THERMAM**, Invited Plenary Lecture, Çeşme, İzmir, Turkey, pp.180-200, Sept. 22th -24th, 2019. <https://thermam.org/upload/abstract-book-thermam2019.pdf>
524. Cotta, R.M., A.C. Pontedeiro, P.A.B. Sampaio, Su Jian, C.A. Aragão de Carvalho, P. Carajilescov, C.P. Naveira Cotta, K.M. Lisboa, J.R.B. Souza, M.A.V. Freitas, G.M. Haguenuer, “Pequenos Reatores Modulares (SMRs): Perspectivas em Dessalinização Nuclear”, **Conexão Nuclear, ABDAN**, Vol.1, no.1, p.19, 2019 (www.abdan.org.br).
525. Miyagawa, H.K., J.N.N. Quaresma, K.M. Lisboa, and R.M. Cotta, “Integral Transform Analysis of Convective Heat Transfer within Wavy Walls Channels”, **Num. Heat Transfer – Part A - Applications**, V.77, no.5, pp.460-481, 2020. doi: 10.1080/10407782.2020.1713619
526. Knupp, D.C., R.M. Cotta, and C.P. Naveira-Cotta, “Conjugated Heat Transfer Analysis via Integral Transforms and Eigenvalue Problems”, **J. Eng. Physics & Thermophysics**, V.93, no.1, pp.65-77, 2020. doi: 10.1007/s10891-020-02091-x
527. Cotta, R.M., C.P. Naveira-Cotta, Kleber M. Lisboa, and Péricles C. Pontes, “Micro and Nanotechnologies in Process Intensification: The Hybrid Approach in Transport Enhancement Analysis”, Invited Plenary Lecture, Anais do **10º Encontro Técnico de Materiais e Química (ETMQ)**, COPPE/UFRJ, Rio de Janeiro, RJ, 27-29 de novembro, pp.1-30, 2019. ISBN: 978-85-5722-396-7 (<https://www.even3.com.br/anais/etmq10/246527-micro-and-nanotechnologies-in-process-intensification--the-hybrid-approach-in-transport-enhancement-analysis/>) doi: 10.29327/etmq10.246410 (doi: 10.29327/etmq10.246527)
528. Cotta, R.M., C.P. Naveira-Cotta, and P. Magal, “Parametric identification and public health measures influence on the COVID-19 epidemic evolution in Brazil”, **MedRxiv – Epidemiology**, no. 2020.03.31.20049130, version 2, pp.1-32, May 12th, 2020. (<https://www.medrxiv.org/content/10.1101/2020.03.31.20049130v2>) doi: 10.1101/2020.03.31.20049130
529. Cotta, R.M., C.P. Naveira-Cotta, M.T. van Genuchten, J. Su, and J.N.N. Quaresma, "Integral Transform Analysis of Radionuclides Migration in Variably Saturated Media with Physical Non-equilibrium Model: Application to Solid Waste Leaching in Uranium Mining", **Annals of the Brazilian Academy of Sciences**, V.92, no.1, pp.1-28, 2020. doi: 10.1590/0001-3765202020190427
530. Quaresma, J.N.N., C.C.S. Cruz, N. Cagney, R.M. Cotta, and S. Balabani, “Effect of Mixed Convection on Laminar Vortex Breakdown in a Cylindrical Enclosure

with a Rotating Bottom Plate”, **Int. J. Thermal Sciences**, V.155, 106399, pp.1-14, 2020. doi: 10.1016/j.ijthermalsci.2020.106399

531. Silva, G.R., D.C. Knupp, C.P. Naveira-Cotta, R.M. Cotta, and A.J. Silva Neto, “Estimation of Slip Flow Parameters in Microscale Conjugated Heat Transfer Problem”, **Journal of the Brazilian Society of Mechanical Sciences and Engineering**, V.42, 263, 2020. doi: 10.1007/s40430-020-02328-z
532. Cotta, R.M., K.M. Lisboa, and J.L.Z. Zotin, “Integral transforms for flow and transport in continuum and discrete models of fractured heterogeneous porous media”, **Adv. Water Resources**, V.142, pp.1-17, ADWR_103621, 2020. doi: 10.1016/j.advwatres.2020.103621
533. Almeida, A.P., C.P. Naveira-Cotta, and R.M. Cotta, “Transient Multidimensional Heat Conduction in Heterogeneous Media: Integral Transform with Single Domain Formulation”, **Int. Comm. Heat & Mass Transfer**, V.117, pp.104792 (13p.), 2020. doi: 10.1016/j.icheatmasstransfer.2020.104792
534. Cotta, R.M., C.P. Naveira-Cotta, and P. Magal, “Mathematical parameters of the COVID-19 epidemic in Brazil and evaluation of the impact of different public health measures”, **MDPI Biology**, Special Issue "Theories and Models on COVID-19 Epidemics", V.9, no.8, pp.220-246, 2020. doi: 10.3390/biology9080220
535. Lisboa, K.M., D.B. Moraes, C.P. Naveira-Cotta, and R.M. Cotta, “Analysis of the Membrane Effects on the Energy Efficiency of a Direct Contact Membrane Distillation (DCMD) Module for Waste Heat Recovery”, **Appl. Thermal Eng.**, V.182, pp.1-14, 2021. doi: 10.1016/j.applthermaleng.2020.116063
536. Lisboa, K.M., J.L.Z. Zotin, and R.M. Cotta, “Hybrid Solutions for Thermally Developing Flows in Channels Partially Filled with Porous Media”, **Num. Heat Transfer, Part B - Fundamentals**, V.79, no.4, pp.189-215, 2021. doi: 10.1080/10407790.2020.1819700
537. Cotta, R.M., S.M.C. Anjos, F.M. Passarelli, and L.S. Guimarães, “Avanços e Perspectivas na Geração Elétrica Nuclear Submarina”, **ABCM Engenharia**, Vol.23, no.1, pp.29-37, 2020. <https://abcm.org.br/uploads/ABCM2020vol23.pdf> ISSN 2237-9851
538. Anjos, E.B., C.P. Naveira-Cotta, R.M. Cotta, I.S. Carvalho, and M.K. Tiwari, “Improved Lumped-Differential Analysis of the Freezing Process in a Supercooled Water Droplet”, **ENCIT 2020, 18th Brazilian Congress of Thermal Sciences and Engineering**, Paper # ENC-2020-0502, pp.1-10, Porto Alegre, RS, Brazil, November 16th-20th, 2020. doi: 10.26678/ABCM.ENCIT2020.CIT20-0502
539. Reis, B.S., V.C. Martins, C.P. Naveira-Cotta, R.M. Cotta, and M.K. Tiwari, “Numerical Investigation of the Asymmetry Effects on Two-Dimensional Flow Around a Decentralized Circular Cylinder Confined in a Microchannel”, **ENCIT 2020, 18th Brazilian Congress of Thermal Sciences and Engineering**, Paper #

ENC-2020-0533, pp.1-10, Porto Alegre, RS, Brazil, November 16th-20th, 2020.
doi: 10.26678/ABCM.ENCIT2020.CIT20-0533

540. Knupp, D.C., K.M. Lisboa, and R.M. Cotta, “Convective-Diffusive Eigenvalue Problem Bases for Integral Transform Solutions in Transport Phenomena”, **ENCIT 2020, 18th Brazilian Congress of Thermal Sciences and Engineering**, Paper # ENC-2020-0292, pp.1-10, Porto Alegre, RS, Brazil, November 16th-20th, 2020. doi: 10.26678/ABCM.ENCIT2020.CIT20-0292
541. Ordonez, J.A.E., E.N. Macedo, J.N.N. Quaresma, and R.M. Cotta, “Generalized Integral Transforms and Kirchhoff Transformation in Nonlinear Heat Conduction”, **ENCIT 2020, 18th Brazilian Congress of Thermal Sciences and Engineering**, Paper # ENC-2020-0667, pp.1-7, Porto Alegre, RS, Brazil, November 16th-20th, 2020. doi: 10.26678/ABCM.ENCIT2020.CIT20-0667
542. Carvalho, I.S., R.M. Cotta, C.P. Naveira Cotta, and M.K. Tiwari, “Hybrid Integral Transform Analysis of Supercooled Droplets Solidification”, **Proc. Royal Society A - Mathematical, Physical and Eng. Sciences**, V. 477, pp.1-25, 2021. doi: 10.1098/rspa.2020.0874
543. Sousa, A.H.R., K.M. Lisboa, C.P. Naveira-Cotta, and R.M. Cotta, “Transient Three-dimensional Conjugated Heat Transfer with Integral Transforms and Single Domain Formulation”, Proceedings of **CHT-21 - ICHMT International Symposium on Advances in Computational Heat Transfer**, Paper # CHT-21-120, pp.1-25, August 15th – 19th, 2021, Rio de Janeiro, Brazil.
<https://www.ichmt.org/storage/files/upload/book-abstracts-07-31.pdf>
544. Silva, E.M., J.N.N. Quaresma, E.N. Macedo, and R.M. Cotta, “Integral Transforms for Three-Dimensional Pumping in Confined, Leaky, and Unconfined Aquifers”, **J. of Hydrology & Hydromechanics**, V.69, no.3, pp.319-331, 2021. doi: 10.2478/johh-2021-0020
545. Cruz, C.S.C., L.M. Pereira, E.N. Macêdo, J.N.N. Quaresma, and R.M. Cotta, "Integral Transform Solution of Swirling Laminar Flows in Cylindrical Cavity with Rotating End Walls", **J. Braz. Soc. Mech. Sciences and Eng.**, V.43, pp.401-417, 2021. doi: 10.1007/s40430-021-03108-z
546. Lisboa, K.M., J.L.Z. Zotin, C.P. Naveira-Cotta, and R.M. Cotta, “Leveraging the Entropy Generation Minimization and Designed Porous Media for the Optimization of Heat Sinks Employed in Low-Grade Waste Heat Harvesting”, **Int. J. Heat & Mass Transfer**, V.181, no. 121850, pp.1-12, 2021. doi: 10.1016/j.ijheatmasstransfer.2021.121850
547. Anjos, E.B., C. P. Naveira-Cotta, M.K. Tiwari, R.M. Cotta, and I.S. Carvalho, “Improved Lumped Model for Freezing of a Supercooled Water Droplet”, **J. Eng. Math.**, V.130, no.1, article #9, pp.1-21, 2021. doi: 10.1007/s10665-021-10161-z
548. Cotta, R.M., P.C. Pontes, A.H.R. Sousa, C.P. Naveira-Cotta, K.M. Lisboa, “Computational-analytical Simulation of Microsystems in Process Intensification”, **High Temperatures, High Pressures, Thermophysical Properties:**

Fundamentals and Applications, V.50, no.6, pp.469-495, 2021. doi: 10.32908/hthp.v50.1189
<https://www.oldcitypublishing.com/journals/hthp-home/hthp-issue-contents/hthp-volume-50-number-6-2021/>

549. Naveira-Cotta, C.P., G. Pontrelli, and R.M. Cotta, “Diffusion-Reaction Drug Release Model in Non-Homogeneous Micro-Capsules via Integral Transform”, **Mathematical Modelling and Control for Healthcare and Biomedical Systems MCHBS 2021**, Italian National Research Council (CNR), p.70, Italy, September 28-30, 2021. ISBN: 978-88-8080-138-2
http://www.biomatematica.it/mchbs2021/MCHBS_2021_BookOfAbstracts.pdf
550. Pelisoli, L.O., R.M. Cotta, C.P. Naveira-Cotta, and P. Couto, “Three-dimensional Transient Flow in Heterogeneous Reservoirs: Integral Transform Solution of a Generalized Point-Source Problem”, **J. Petroleum Science & Eng.**, V.211, no.109976, pp.1-21, April 2022. doi: 10.1016/j.petrol.2021.109976
551. Chen, K. C.P. Naveira-Cotta, R.. Cotta, P.C. Pontes, “Heat Transfer Analysis of Compressible Laminar Flow in a Parallel Plate Channel via Integral Transforms”, **Int. Comm. Heat & Mass Transfer**, 2022, in press. doi: 10.1016/j.icheatmasstransfer.2022.106368 (available at SSRN: <https://ssrn.com/abstract=4129743> or <http://dx.doi.org/10.2139/ssrn.4129743>)
552. Cotta, R.M., K.M. Lisboa, C.P. Naveira-Cotta, J.N.N. Quaresma, D.C. Knupp, and L.A. Sphaier, “Unified Integral Transforms with Non-Classical Eigenvalue Problems in Heat and Mass Transfer”, **ASME J. Heat Transfer**, in press.
553. Sousa, A.H.R., K.M. Lisboa, C.P. Naveira-Cotta, and R.M. Cotta, “Transient Three-Dimensional Conjugated Heat Transfer with Integral Transforms and Single Domain Formulation”, **Heat Transfer Eng.**, in press.
554. Curcino, I.V., P.R.S. Costa Júnior, A.O. Cárdenas Gómez, L.E. Peñaranda Chenche, J.A. Lima, C.P. Naveira-Cotta, and R.M. Cotta, “Influence of Membrane Effective Thermal Conductivity and Tortuosity Models on the Performance of DCMD Systems for Desalination”, **XI National Congress of Mechanical Engineering, CONEM 2022**, Paper # CONEM 2022-0125, pp.1-10, Teresina, PI, Brasil, 7th-11th August, 2022.
555. Anjos, E.B., A.O. Cárdenas Gómez, L.E. Penaranda Chenche, J.A. Lima, C. P. Naveira-Cotta, R.M. Cotta, and K.M. Lisboa, “Enhancing DCMD Efficiency for Desalination at Module Scale through Dual Heat Recovery and Retentate Recirculation”, Proc. of **Int. Symp. on Convective Heat and Mass Transfer in Sustainable Energy, CONV-22**, Paper # CONV-22-A43, pp.533-540, ICHMT Digital Library Online, Izmir Turkey, June 5th-10th, 2022. doi: 10.1615/ICHMT.2022.CONV22.690
556. Cotta, R.M., K.M. Lisboa, C.P. Naveira-Cotta, and J.L.Z. Zotin, “Analytical-Computational Methods in Energy Efficiency and Sustainable Energies”, Keynote Lecture, Proc. of **Int. Symp. on Convective Heat and Mass Transfer in Sustainable Energy, CONV-22**, Paper # CONV-22-KN-VIII, pp.43-65, ICHMT

Digital Library Online, Izmir Turkey, June 5th-10th, 2022. doi: 10.1615/ICHMT.2022.CONV22.80

557. Padet, J., and R.M. Cotta, "Fully Developed Mixed Convection in a Plane Vertical Microchannel", Proc. of **International Symposium on Convective Heat and Mass Transfer in Sustainable Energy, CONV-22**, Paper # CONV-22-A50, pp.273-280, ICHMT Digital Library Online, Izmir Turkey, June 5th-10th, 2022. doi: 10.1615/ICHMT.2022.CONV22.290
558. Cárdenas-Gomez, A.O., P.C. Sedrez, G.N. Sousa, J.G.N. Pinto, D.B. Moraes, L.E. Penaranda-Chenche, Carolina .P. Naveira-Cotta, Priscila S.T. Amaral, R.M. Cotta, "Membrane Distillation Demonstration Unit with Waste Heat Recovery for Water Desalination", **3rd World Conference on Advanced Materials for Defense, AuxDefense 2022**, Ed. R. Figueiro, Paper # ID216, pp.184-185, Guimarães, Portugal, July 6th-8th, 2022. ISBN 978-989-54808-7-6 <https://conference.auxdefense.pt/book-of-abstracts/>
559. Pontes, P.C., K.B. Oliveira, E.N. Macedo, J.N.N. Quaresma, C.P. Naveira-Cotta, and R.M. Cotta, "Nonlinear Eigenvalue Problem Approach for Mass Transfer in Supported Liquid Membrane Co-Transport Separation Processes", **J. Braz. Soc. Mech. Sciences and Eng.**, in press.
560. Curcino, I.V., P.R.S. Costa Júnior, A.O. Cárdenas Gómez, L.E. Peñaranda Chenche, J.A. Lima, C.P. Naveira-Cotta, R.M. Cotta, "Analysis of Effective Thermal Conductivity and Tortuosity Modeling in Membrane Distillation Simulation", **Micro and Nano Engineering**, Special Issue on Innovations for Water and Energy Sustainability, in press.
561. Lisboa, K.M., I.F. Pinheiro, and R.M. Cotta, "Integral Transform Solution of Porous Medium Models for Heat Sinks Subject to Periodic Heat Loads", **ASME J. Heat Transfer**, Special Memorial Issue for Prof. Ivan Catton: Innovations and Advancements in Heat & Mass Transfer, in press.
562. Carvalho Filho, C.A.A., R.M. Cotta, and G.S. Sineiro, "Tecnologias Nucleares para o Mar", In: "**Economia Azul como Vetor do Desenvolvimento Nacional**", Seção III, Cap.9, pp.1-20, 2022. (in press)
563. Silva, G.C.G.R., K.M. Lisboa, C.P. Naveira-Cotta, S. Jian, and R.M. Cotta, "Assessment of Desalination Via Membrane Distillation Using Low-Grade Waste Heat in Small Modular Reactors", **ENCIT 2022, 19th Brazilian Congress of Thermal Sciences and Engineering**, Paper # ENCIT2022-0670, pp.1-8, Bento Gonçalves, RS, Brazil, November 6th-10th, 2022.
564. Mesquita, C., I. Curcino, A.O. Cárdenas Gómez, J.A. Lima, C.P. Naveira-Cotta, and R.M. Cotta, "Experimental Analysis of the Heat and Mass Transfer of a Flatsheet Module of Direct Contact Membrane Distillation (DCMD) for Desalination", **ENCIT 2022, 19th Brazilian Congress of Thermal Sciences and Engineering**, Paper # ENCIT2022-0325, pp.1-10, Bento Gonçalves, RS, Brazil, November 6th-10th, 2022.

565. Anjos, E.B., I.S. Carvalho, C.P. Naveira-Cotta, M.K. Tiwari, and R.M. Cotta, “Numerical Simulation of Supercooled Droplets Freezing During In-Flight Icing Via Hybrid Numerical-Analytical Method”, **Handbook of Numerical Simulation of In-Flight Icing**, Ed. W.G. Habashi, Springer, 2022. (in press)
566. Cotta, R.M., J.N.N. Quaresma, J.A. Lima, and K.M. Lisboa, “Integral Transforms in Nonlinear Convection”, Keynote Lecture, **XIII Escola de Primavera de Transição e Turbulência – EPTT 2022**, pp.1-49, Blumenau, SC, Sept. 19th-23rd, 2022.
567. Cárdenas-Gomez, A.O., P.C. Sedrez, G.N. Sousa, D.B. Moraes, L.E. Penaranda-Chenche, Carolina .P. Naveira-Cotta, Priscila S.T. Amaral, R.M. Cotta, “Aqua Vitae Project: Water Desalination via Membrane Distillation with Waste Heat Recovery From Thermal Engines”, **Revista de la JID 80 Años**, Junta Interamericana de Defensa, Washington, DC, pp.1-3, 2022, (submitted).
568. Lisboa, K.M., I.F. Pinheiro, K.C.R.F. Ferreira, L.A. Sphaier, and R.M. Cotta, “Film Condensation with a Non-Condensable Gas: Hybrid Integral Transforms Solution for External Boundary Layers”, **Int. J. Thermal Sciences**, (submitted).

BOOKS

1. R.M. Cotta, **CALPAK - Computational Laboratory in Heat Transfer**, Núcleo de Publicações, COPPE/UFRJ, 1988 (in Portuguese).
2. R.M. Cotta, **Integral Transforms in Computational Heat and Fluid Flow**, CRC Press, Boca Raton, USA, 1993. ISBN: 0849386659; eBook ISBN 9781003069065; doi: 10.1201/9781003069065
3. R.M. Cotta & M.D. Mikhailov, **Heat Conduction: Lumped Analysis, Integral Transforms, Symbolic Computation**, Wiley-Interscience, N.Y., 1997. ISBN: 0471956481
4. R.M. Cotta, **The Integral Transform Method in Thermal-Fluid Sciences and Engineering**, Begell House Inc., N.Y., 1998. ISBN: 1567001203
5. R.M. Cotta, L.S.B. Alves, and M.D. Mikhailov, **Applied Numerical Analysis with Mathematica**, MTC/WRI, Editora E-papers, 2001. ISBN: 858792222X
6. H.R.B. Orlande, O. Fudym, D. Maillet, and R.M. Cotta, Eds., **Thermal Measurements and Inverse Techniques**, CRC Press, 2011. ISBN: 978-1-439-84555-4; doi: 10.1201/b10918
7. R.M. Cotta, D.C. Knupp, and C.P. Naveira-Cotta, **Analytical Heat and Fluid Flow in Microchannels and Microsystems**, Mechanical Eng. Series, Springer-Verlag, 2016. ISBN: 978-3-319-23311-6; doi: 10.1007/978-3-319-23312-3
8. M. Rebay, S. Kakaç, and R.M. Cotta, Eds., **Microscale and Nanoscale Convective Heat Transfer: Concepts, Analysis, and Applications**, CRC Press, Boca Raton, FL, 2016. ISBN: 978-1-498-73630-5; doi: 10.1201/b19261
9. M.N. Ozisik, H.R.B. Orlande, M.J. Colaço, and R.M. Cotta, "**Finite Difference Methods in Heat Transfer**", 2nd Edition, CRC Press, Boca Raton, FL, 2017. ISBN: 978-1-4822-4345-1; doi: 10.1201/9781315121475
10. F.A. Kulacki, S. Acharya, Y. Chudnovsky, R.M. Cotta, R. Devireddy, V.K. Dhir, P. Mengüç, J. Mostaghimi, K. Vafai, Eds., **Handbook of Thermal Science and Engineering**, Vols.1-4, Springer, 2018. ISBN:978-3-319-26694-7; doi: 10.1007/978-3-319-26695-4

EDITORIALS and SUPPLEMENTARY MATERIALS

1. R. Cotta J. Padet W.J. Minkowycz R.I. Nigmatulin W.-J. Yang, Professor Sadik Kakac on his 70th birthday, **International Journal of Heat and Mass Transfer** 46 (2003) 2925–2926.
2. Renato M. Cotta, Sadik Kakac, Leonard Vasiliev, Franz Mayinger, Yaman Yener, James P. Hartnett, W.J. Minkowycz, Personal report - 70th birthday of Professor Mikhail Dimitrov Mikhailov, **International Journal of Heat and Mass Transfer** 49 (2006) 449–450. doi: 10.1016/j.ijheatmasstransfer.2005.05.031
3. Cotta, R.M., Orlande, H.R.B., Editorial: Selected papers from the 19th International Congress of Mechanical Engineering of ABCM COBEM 2007, **High Temperatures, High Pressures, Thermophysical Properties: Fundamentals and Applications**, V. 38(2), 2009.
4. Helcio R.B. Orlande, Renato M. Cotta, W.J. Minkowycz, Mikhail D. Mikhailov, Sadik Kakaç, Yaman Yener, Yildiz Bayazitoglu, Woo S. Kim, T. Nejat Veziroglu, E.M. Sparrow, Jean François Sacadura, Obituary Professor Emeritus M. Necati Özisik 1923–2008, **International Journal of Heat and Mass Transfer** 52 (2009) 2425–2426.
5. R.M. Cotta, V.K. Dhir, A. Luke, D. Mewes, W.J. Minkowycz, S. Kakaç, In Celebration - Prof. Em. Dr.-Ing. Dr.-Ing. E.h. mult. Franz Mayinger on his 80th birthday, **International Journal of Heat and Mass Transfer**, Volume 54, Issues 19–20, September 2011, Pages 4155-4156. Doi: 10.1016/j.ijheatmasstransfer.2011.05.007
6. Cotta, R.M., Orlande, H.R.B., Editorial: 13th Brazilian congress of thermal sciences and engineering - ENCIT 2010, **High Temperatures, High Pressures, Thermophysical Properties: Fundamentals and Applications**, V. 41(3), pp. 159-160, 2012.
7. Renato M. Cotta, Y. Jaluria, M.D. Mikhailov, W.J. Minkowycz, Robert I. Nigmatulin, J. Padet, In Celebration - Prof. Sadik Kakaç on his 80th birthday, **International Journal of Heat and Mass Transfer**, Volume 55, Issues 19–20, September 2012, Pages 4936-4937. Doi: 10.1016/j.ijheatmasstransfer.2012.05.045
8. W.J. Minkowycz, Renato M. Cotta, Sadik Kakac, Leonard Vasiliev, Franz Mayinger, Átila P. Silva Freire, Fabio Gori, In Celebration - 80th birthday of Professor Mikhail Dimitrov Mikhailov, **International Journal of Heat and Mass Transfer** 86 (2015) A1. doi: 10.1016/j.ijheatmasstransfer.2015.03.064
9. Kakaç, S., Mikhailov, M.D., Cotta, R.M., Kaviani, M., Leontiev, A.I., Thome, J.R., Professor Leonard L. Vasiliev on his the 80th birthday, **Applied Thermal Engineering**, V.120, pp. 431-432, 2017.
10. Antonio Barletta, Adrian Bejan, Adrian Briggs, Alberto Cavallini, Renato Cotta, Srinivas Garimella, Leon Glicksman, Geoffrey Hewitt, Tassos Karayiannis, Raj Manglik, W.J. Minkowycz, Khellil Sefiane, Yas Takata, John Thome, Yoshio Utaka, Huasheng Wang, Hideo Yoshida, In Celebration - Professor John W. Rose BScEng PhD DScEng(Lond) CEng FIMechE FASME on his 80th birthday, **International Journal of**

Heat and Mass Transfer, Volume 112, September 2017, Pages 169-170. Doi: 10.1016/j.ijheatmasstransfer.2017.04.038

11. Sumanta Acharya, Cristina Amon, Portonovo Ayyaswamy, Francine Battaglia, Adrian Bejan, Gang Chen, Ping Cheng, Wilson K. S. Chiu, Avram Bar Cohen, Renato Cotta, Leonid Dombrovsky, Mohammad Faghri, Pradeep George, Yogendra Joshi, Byung Ha Kang, Mukund Karwe, James F. Klausner, Sanjiva Lele, Giulio Lorenzini, Oronzio Manca, W.J. Minkowycz, Elias Papanicolaou, Suhas V. Patankar, Darrell Pepper, G.P. “Bud” Peterson, Vishwanath Prasad, Bengt Sundén, Wen-Quan Tao, L.Q. “Rick” Wang, Tianshou Zhao, In Celebration - Professor Yogesh Jaluria on his 70th Birthday, **International Journal of Heat and Mass Transfer**, Volume 140, September 2019, Pages 1106-1107. Doi: 10.1016/j.ijheatmasstransfer.2019.03.038

12. Hirata, M.H., J.L. Scieszko, R.M. Cotta, R.A. Tenenbaum, S.L.V. Coelho, Proceedings of the **10th Brazilian Congress on Mechanical Engineering; Anais do COBEM 89**, ABCM, OSTI Report Number: CONF-8912149, p.641, 1989. <https://www.osti.gov/etdeweb/biblio/541344>

13. Lisboa, Kleber Marques; Cotta, Renato Machado (2017): Supplementary material from "Hybrid integral transforms for flow development in ducts partially filled with porous media". **The Royal Society. Collection.** <https://doi.org/10.6084/m9.figshare.c.3955894.v1>

14. Lisboa, Kleber M., de Moraes, Diego B., Naveira-Cotta, Carolina P.; Cotta, Renato M., (2020), Supplementary Information “Analysis of the membrane effects on the energy efficiency of water desalination in a Direct Contact Membrane Distillation (DCMD) system with heat recovery”, **Mendeley Data**, V2, pp.1-10, doi: 10.17632/z7y3dt35rc.2

15. Carvalho, Igor S.; Cotta, Renato M.; Naveira-Cotta, Carolina P.; Tiwari, Manish K. (2021): Supplementary material from "Hybrid integral transform analysis of supercooled droplets solidification". **The Royal Society Collection.** <https://doi.org/10.6084/m9.figshare.c.5393766.v1>

16. Lisboa, K.M., J.L.Z. Zotin, C.P. Naveira-Cotta, and R.M. Cotta, Supplementary Information for “Leveraging the entropy generation minimization and designed porous media for the optimization of heat sinks employed in low-grade waste heat harvesting”, **Int. J. Heat & Mass Transfer**, V.181, pp.1-19, 2021. [1-s2.0-S00177049.2021.1911111](https://doi.org/10.1080/00177049.2021.1911111) [mmc1.pdf \(els-cdn.com\)](https://doi.org/10.1080/00177049.2021.1911111)

17. Tavman, S., Turgut, A., Cotta, R.M., Orlande, H.R.B., Naveira-Cotta, C.P., Egry, I., Sacadura, J.P., Editorial: In Memoriam Professor Ismail Hakki Tavman, Selected Papers from 6th Int. Conf. on Thermophysical and Mechanical Properties of Advanced Materials, **High Temperatures, High Pressures, Thermophysical Properties: Fundamentals and Applications**, V. 50(6), pp. 383-384, 2021. doi: <https://doi.org/10.32908/hthp.v50.1201>