

# Curriculum Vitae

Name: Le Tuan Hoa (Mr.)

Nationality: Vietnamese

Year of birth: 1957

Place of birth: Thanh hoa, Vietnam

Marital status: married, two sons

Spouse's name: Dinh Thi Quynh Van

Sons: Le Tuan Linh and Le Tuan Minh

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Institute of Mathematics Hanoi, VAST  
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## Education:

Primary school (1st- 7th grade): 1964 - 1971 in Thanh hoa, Vietnam

High school (8th-10th grade): 1971-1974, Special School in Mathematics of  
Pedagogical University of Vinh, Vietnam

## Academic Degrees:

*M.Sc.*: 1980, University of Minsk (Belorussia).

*Ph.D.*: 1990, Halle University (Germany). Advisor: Prof. W. Vogel

*Dr. Sc.*: 1995, Institute of Mathematics, Hanoi

## Professional Appointments:

### Current positions:

- Director of Institute of Mathematics, Hanoi: since June 2013

### Previous positions:

- Researcher at Institute of Mathematics, Hanoi : 1981 – 1996
- Associate professor: 1996-2004
- Full Professor: 2004-present
- Deputy Director of Institute of Mathematics, Hanoi: May 1998 – May 2011
- Professor, Managing Director, Vietnam Institute For Advanced Study in Mathematics (VIASM) (June 2011 to October 2013)

### Other Scientific Activities:

- Deputy General Secretary of the Vietnam Mathematical Society: 1999 - 2004
- Vice –President and General Secretary of the Vietnam Mathematical Society: 2004 – 2008
- President, Vietnam Mathematical Society (2008 – Aug 2013)
- President, South-East Asian Mathematical Society (2012 – 2013)
- Member of Vietnam Council of Professor titles in the field Mathematics since 2009

- Member of The World Academy of Sciences (TWAS) - for the advancement of science in developing countries since November 2011.

**Field of interest:**

Commutative Algebra and Algebraic Geometry

## LIST OF PUBLICATIONS

of Le Tuan Hoa

1. **With N. V. Trung:** Affine semigroups and Cohen-Macaulay rings generated by monomials. *Trans. Amer. Math. Soc.* **298**(1986), 145-167.
2. Classification of the triple projections of Veronese varieties. *Math. Nachr.* **128**(1986), 185-197.
3. **With P. D. Dieu and L. C. Thanh:** Average polynomial time complexity of some NP-complete problems. *Theor. Comput. Sci.* **46**(1986), 219-237.
4. On Segre products of affine semigroup rings. *Nagoya Math. J.* **110**(1988), 113-128.
5. Algorithmical aspects of the problem of classifying multi-projections of Veronese varieties. *Manuscripta Math.* **63**(1989), 317-331.
6. **With M. Fiorentini:** On monomial  $k$ -Buchsbaum curves in  $\mathbb{P}^r$ . *Ann. Univ. Ferrara, Sez. VII, Sc. Mat.* **36**(1990), 159-174.
7. The Gorenstein property depends upon characteristic for affine semigroup rings. *Arch. Math.* **56**(1991), 228-235.
8. **With J. Stueckrad and W. Vogel:** Towards a structure theory for projective varieties of degree = codimension + 2. *J. Pure Appl. Algebra* **71**(1991), 203-231.
9. A note on projective monomial surfaces. *Math. Nachr.* **154**(1991), 183-188.
10. On monomial  $k$ -Buchsbaum curves in  $\mathbb{P}^3$ . *Manuscripta Math.* **73**(1991), 423-436.
11. **With R. Fr\"oberg:** Segre products and Rees algebras of face rings. *Comm. Algebra* **20**(1992), 3369-3380.
12. On minimal free resolutions of projective varieties of degree = codimension + 2. *J. Pure Appl. Algebra.* **87**(1993), 241-250.
13. Koszul homology and generalized Cohen-Macaulay modules. *Acta Math. Vietnamica.* **18**(1993), 91-98.
14. On reduction numbers and Rees algebras of powers of an ideal. *Proc. Amer. Math. Soc.* **119**(1993), 415-422.
15. **With R. M. Miro-Roig and W. Vogel:** On numerical invariants of locally Cohen-Macaulay schemes in  $\mathbb{P}^n$ . *Hiroshima math. J.* **24**(1994), 299-316.

16. **With W. Vogel:** Castelnuovo-Mumford regularity and hyperplane sections. *J. Algebra*. **163**(1994), 348-365.
17. **With M. Fiorentini:** Some remarks on generalized Cohen-Macaulay rings. *Bull. Belg. Math. Soc.* **1**(1994), 507-519.
18. **With H. Bresinsky, F. Curtis and M. Fiorentini:** On the structure of local cohomology modules for projective monomial curves in  $\mathbb{P}^3$ . *Nagoya Math. J.* **136**(1994), 81-114.
19. **With S. Zarzuela:** Reduction numbers and  $\mathfrak{a}$ -invariants of good filtrations. *Comm. Algebra*. **22**(1994), 5635-5656.
20. Bounds for the Betti numbers of a projective curve. In Proceeding of the International Conference "Commutative Algebra", Vechta 1994 (eds: W. Bruns, J. Herzog, M. Hochster and U. Vetter), pp. 85-88.
21. **With C. Miyazaki:** Bounds on Castelnuovo-Mumford regularity for generalized Cohen-Macaulay graded rings. *Math. Ann.* **301**(1995), 587-598.
22. Bounds for the number of generators of generalized Cohen-Macaulay ideals. *J. Algebra* **178**(1995), 302-316.
23. **With R. M. Miro-Roig:** Bounds for the Betti numbers of generalized Cohen-Macaulay ideals. *Proc. Amer. Math. Soc.* **123**(1995), 2397-2405.
24. A note on the Hilbert-Samuel function in a two-dimensional local ring. *Acta Math. Vietnamica*. **21**(1996), 335-347.
25. Reduction numbers of equimultiple ideals. *J. Pure Appl. Algebra* **109**(1996), 111-126.
26. Postulation number of good filtrations. *Comm. Algebra* **25**(1997), 1961-1974.
27. **With N. V. Trung:** On the Castelnuovo-Mumford regularity and the arithmetic degree of monomial ideals. *Math. Z.* **229**(1998), 519-537.
28. Castelnuovo-Mumford regularity and defining equations of a locally Cohen-Macaulay algebra. *Commutative Algebra, Algebraic Geometry, and Computational Methods (Ed.: D. Eisenbud)*, Springer 1999, pp. 301 - 313.
29. **With H. Bresinsky:** On the reduction number of some graded algebras. *Proc. Amer. Math. Soc.* **127**(1999), 1257 - 1263
30. **With H. Bresinsky:** Minimal generating sets for a family of monomial curves in  $A^4$ . *Commutative Algebra and Algebraic Geometry (ed. F. Van Oystaeyen), Lect. Notes in pure appl. Math. V.* **206**(1999), pp. 5 - 14
31. **With H. Allsop:** On quotient between length and multiplicity, *Comm. Algebra* **28** (2000), 815-828

32. **With H. Bresinsky**: On hereditary problems between  $I$  and  $\text{in}(I)$ , *Acta Mathematica Vietnamica* **26**(2001), 219-230.
33. **With J. Herzog and N.V. Trung**, Asymptotic linear bounds for the Castelnuovo-Mumford regularity, *Trans. Amer. Math. Soc.* **354**(2002), 1793-1809.
34. Asymptotic behavior of reduction numbers, *Proc. Amer. Math. Soc.* **130** (2002), 3151-3158.
35. *Đại số máy tính: Cơ sở Groebner*, NXB ĐHQG 2003, 290 tr. (Computer Algebra: Groebner bases, in Vietnamese).
36. **With J. Stueckrad**, Castelnuovo-Mumford regularity of simplicial toric rings, *J. Algebra* **259** (2003), 127-146
37. **With Eero Hyry**, On local cohomology and Hilbert function of powers of ideals, *manuscripta math.* **112**(2003), 77-92.
38. **With N.V. Trung**, Borel-fixed ideals and reduction number, *J. Algebra* **270** (2003), 335-346.
39. **With H. Bresinsky**, the  $k$ -Buchsbaum property for polynomial ideals, *J. Math. Kyoto Univ.* **43** (2003), 699--717.
40. **With Eero Hyry**, Castelnuovo–Mumford regularity of initial ideals, *J. Symb. Computation*, **38** (2004), 1327-1341.
41. Some computational problems in Commutative Algebra and Algebraic Geometry, In: “*Proceedings of VI-th Vietnamese Mathematical Conference* (Eds: H.H. Khoai, D.T. Thi and D.L. Van), VNU 2005, pp. 33-58.
42. *Đại số tuyến tính qua các ví dụ và bài tập*, NXB ĐHQG 2006, 448 tr. (Linear Algebra: examples and problems, in Vietnamese).
43. **With E. Hyry**, Castelnuovo–Mumford regularity of canonical and deficiency modules, *J. Algebra*, **305** (2006), 877-900.
44. Stability of associated primes of monomial ideals, *Vietnam. J. Math.* **34**(2006), No.4, 473-487.
45. **With T. N. Trung**, Castelnuovo–Mumford regularity of sums of powers of polynomial ideals, *Comm. Algebra* **36**(2008), 806-820.
46. **With D. T. Ha**, Castelnuovo–Mumford regularity of some modules, *Comm. Algebra* **36**(2008), 992-1004.

47. Finiteness of Hilbert functions and Castelnuovo-Mumford regularity of initial ideals, *Trans. Amer. Math. Soc.* **360**(2008), 4519-4540.
48. **With. M. Hellus and J. Stueckrad**, Grobner bases of simplicial toric ideals, *Nagoya Math. J.* **196** (2009), 1-19.
49. **With. M. Hellus and J. Stueckrad**, Castelnuovo-Mumford regularity and reduction number of some monomial curves, *Proc. Amer. Math. Soc.* **138**(2010), 27-35.
50. **With T.N. Trung**, Partial Castelnuovo-Mumford regularities of sums and intersections of monomial ideals, *Math. Proc. Cambridge Soc.* **149** (2010), 229-246.
51. **With N. D. Tam**, On some invariants of a mixed product of ideals, *Arch. Math.* **94** (2010), 327-337.
52. **With D. H. Giang**, On local cohomology of a tetrahedral curve, *Acta Math. Vietnam.* **35** (2010), 229-241.
53. **With M. Chardin and D.T. Ha**, Castelnuovo-Mumford regularity of Ext modules and homological degree, *Trans. Amer. Math. Soc.* **363** (2011), 3439-3456
54. **With L.X. Dung**, Castelnuovo-Mumford regularity of associated graded modules and fiber cones of filtered modules, *Comm. Algebra* **40** (2012), 404-422.
55. **With M. Morales**, Non-linear behaviour of Castelnuovo–Mumford regularity, *Journal of Algebra* **356** (2012), 207 – 215.
56. **With L. X. Dung**, Dependence of Hilbert coefficients, *Manu. Math.* DOI .1007/s00229-015-0726-6 (2015)
57. **With T. N. Trung**, Castelnuovo-Mumford regularity of symbolic powers of two-dimensional square-free monomial ideals, *J. Comm. Algebra* (to appear).