

Curriculum vitae

Family Name: PHAM Tien Son
Date of birth: January 21, 1964
Place of birth: Haiphong–VIETNAM
Present Nationality: VIETNAM
Sex: Male
Marital status: Married



Full name and Address of permanent institute:

Department of Mathematics
University of Dalat
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Academic degree: Ph.D. in Mathematics

Present Position: Associate Professor
Department of Mathematics, University of Dalat

Research field: Mathematics

Areas of research:

- Theory of singularities
- Real and complex analysis
- Optimization of polynomial functions

Academic Qualifications:

- Doctor of Philosophy, Institute of Mathematics, Hanoi, 2001
- Master in Mathematics, University of Dalat, 1999
- Graduate Diploma in Mathematics, University of Dalat, 1985

Employment:

- 2007 – Present: Associate Professor, University of Dalat
- 1985 – 2007: Lecturer, University of Dalat

Visiting appointments of 3 months or more:

- 2009 (3 months) ICTP, Trieste, Italy
- 2007 (3 months) ICTP, Trieste, Italy
- 2006 (3 months) ICTP, Trieste, Italy
- 2003–2004 (10 months) LMI – INSA Rouen, French

- 1999 (3 months) CMI, University of Aix – Marseille, French
- 1998 (3 months) CMI, University of Aix – Marseille, French

International conferences organized:

- *The 4th Franco – Japanese – Vietnamese Symposium on Singularities*, November 7 – 11, 2016, Chambéry, France
- *The 3rd Franco – Japanese – Vietnamese Symposium on Singularities*, November 30 – December 4, 2015, Hanoi, Vietnam
- *Geometry and Topology of Singular Varieties. Theory and Applications* December 2–14, 2013, Institute of Mathematics, VAST, Vietnam
- *Topology of Singularities and Related Topics*, III, March 26–30, 2012, University of Dalat, Vietnam
- *Mathematical Optimization Theory and Applications*, December 8–10, 2011, University of Dalat, Vietnam
- *Geometry – Topology – Algebra – Arithmetics*, December 22–24, 2008, University of Dalat, Vietnam

Book:

(with Hà Huy Vui), *Genericity in polynomial optimization*, World Scientific Publishing, To appear.

Preprints:

1. (with Hoàng Phi Dũng and Nguyễn Hồng Đức), *Łojasiewicz exponents of analytic function germs of two variables*, 2016.
2. (with Do Sang Kim and Nguyễn Văn Tuyên), *On the existence of Pareto solutions for semi-algebraic vector optimization problems*, 2016. Available from <https://arxiv.org/abs/1611.07108>.
3. (with Jae Hyung Lee and Gue Myung Lee), *Genericity and Holder stability in semi-algebraic variational inequalities*, 2016.
4. (with Masaharu Ishikawa and Nguyễn Tất Thắng), *The bifurcation set of a real polynomial function of two variables and Newton polygons of singularities at infinity*, Available from <http://arxiv.org/abs/1608.02679>.
5. (with Krzysztof Kurdyka and Đinh Sĩ Tiệp), *Global mixed Łojasiewicz inequalities and asymptotic critical values*, Available from ftp://file.viasm.org/Web/TienAnPham-16/Preprint_1634.pdf, 2016.
6. (with Công-Trình Lê), *On tangent cones at infinity of algebraic varieties*, Available from <http://arxiv.org/abs/1603.02761> [Accessed Wed, 9 Mar 2016]
7. (with Nguyễn Quang Diệu and Đậu Hoàng Hưng), *Volume estimates of real lemniscate in \mathbf{R}^n* , submitted 2016.

8. (with Gue Myung Lee), *Genericity for semialgebraic programs*. Available from http://www.optimization-online.org/DB_HTML/2015/06/4957.html [Accessed 12th June 2015].
9. (with Trương Xuân Đức Hà and Jen-Chih Yao), *Weak sharp minima for semi-algebraic vector optimization problems*. Available from http://www.optimization-online.org/DB_HTML/2014/10/4592.html [Accessed 10th October 2014].
10. (with Đinh Sĩ Tiệp and Hà Huy Vui), *Holder-type global error bounds for non-degenerate polynomial systems*, <http://arxiv.org/abs/1411.0859> [Accessed 4th November 2014].

Publications:

1. (with Đinh Sĩ Tiệp), *Lojasiewicz inequality with explicit exponent for smallest singular value functions*, **Journal of Complexity**, To appear.
2. (with Guoyin Li, Boris Mordukhovich, T. T. A. Nghia), *Error bounds for parametric polynomial systems with applications to higher-order stability analysis and convergence rates*. **Mathematical Programming Series B**, DOI 10.1007/s10107-016-1014-6, 2016.
3. (with Bùi Nguyễn Thảo Nguyên), *On the subanalytically topological types of function germs*, **Houston Journal of Mathematics**, Volume 42, No. 4, 1111–1126, 2016.
4. (with Bùi Nguyễn Thảo Nguyên), *Topologically principal part at infinity of polynomials*, **Annales Polonici Mathematici**, DOI: 10.4064/ap3560-4-2016.
5. (with Đặng Văn Đoạt and Hà Huy Vui), *Well-posedness in unconstrained polynomial optimization problems*, **SIAM Journal on Optimization**, Volume 26, No. 3, 1411–1428, 2016.
6. (with Roxana Heg, Didier Henrion, Jean-Bernard Lasserre), *Semidefinite approximations of the polynomial abscissa*. **SIAM Journal on Control and Optimization**, Volume 54, No. 3, 1633–1656, 2016.
7. (with Gue Myung Lee), *Stability and genericity for semi-algebraic compact programs*, **Journal of Optimization Theory and Applications**, Volume 169, Issue 2, 473–495, 2016.
8. (with Vaithilingam Jeyakumar, Jean Bernad Lasserre, and Guoyin Li), *Convergent semidefinite programming relaxations for global bilevel polynomial optimization problems*, **SIAM Journal on Optimization**, Volume 26, No. 1, 753–780, 2016.

9. (with Đinh Sĩ Tiệp), *Łojasiewicz-type inequalities with explicit exponents for the largest eigenvalue function of real symmetric polynomial matrices*, **International Journal of Mathematics**, Volume 27, No. 2, 2016.
10. (with Haraux Alain), *On the Łojasiewicz exponents of quasi-homogeneous functions*, **Journal of Singularities**, Volume 11, 52–66, 2015.
11. (with Guoyin Li and Boris Mordukhovich), *New fractional error bounds for polynomial systems with applications to Hölderian stability in optimization and spectral theory of tensors*, **Mathematical Programming Series A**, Volume 153, Issue 2, 333–362, 2015.
12. (with Hà Huy Vui and Huỳnh Văn Ngãi), *A global version of the classical Łojasiewicz inequality*, **Journal of Mathematical Analysis and Applications**, Volume 421, Issue 2, 1559–1572, 2015.
13. (with Bùi Nguyễn Thảo Nguyễn), *Computation of the Łojasiewicz exponent of nondegenerate analytic functions*, **International Journal of Mathematics**, Volume, 25, No. 10, 1450092 (13 pages), 2014.
14. (with Gue Myung Lee), *On nonsmooth optimality theorems for robust optimization problems*, **Bulletin of the Korean Mathematical Society**, Volume 51, No. 1, 287–301, 2014.
15. (with Đinh Sĩ Tiệp and Hà Huy Vui), *A Frank-Wolfe type theorem for nondegenerate polynomial programs*, **Mathematical Programming Series A**, Volume 147, Issue 1–2, 519–538, 2014.
16. (with Đinh Sĩ Tiệp, Hà Huy Vui, and Nguyễn Thị Thảo), *Global Łojasiewicz-type inequality for non-degenerate polynomial maps*, **Journal of Mathematical Analysis and Applications**, Volume 410, Issue 2, 541–560, 2014.
17. (with Vaithilingam Jeyakumar and Guoyin Li), *Convergence of the Lasserre hierarchy of semidefinite programming relaxations for convex polynomial programs without compactness*, **Operations Research Letters**, Volume 42, Issue 1, 34–40, 2014.
18. *An explicit bound for the Łojasiewicz exponent of real polynomials*, **Kodai Mathematical Journal**, 35, 310–318, 2012.
19. (with Haraux Alain) *On the gradient of quasi-homogeneous polynomials*, **Universitatis Iagellonicae Acta Mathematica**, 49, 45–57, 2011.
20. *The Łojasiewicz exponent of a subanalytic mapping at an isolated zero*, **Proceedings of the American Mathematical Society**, 139, 1–9, 2011.

21. (with Hà Huy Vui), *Representations of positive polynomials and optimization on noncompact semi-algebraic sets*, **SIAM Journal on Optimization**, 20, 3082–3103, 2010.
22. *Invariance of the global monodromies in families of nondegenerate polynomials in two variables*, **Kodai Mathematical Journal**, 33, 294–309, 2010.
23. (with Hà Huy Vui), *Solving polynomial optimization problems via the truncated tangency variety and sums of squares*, **Journal of Pure and Applied Algebra**, 213, 2167–2176, 2009.
24. (with Hà Huy Vui), *On the Łojasiewicz exponent at infinity of real polynomials*, **Annales Polonici Mathematici**, 94No. 3, 197–208, 2008.
25. *On the topology of the Newton boundary at infinity*, **Journal of the Mathematical Society of Japan**, Vol. 60, No. 4 (2008), 1065–1081.
26. (with Hà Huy Vui), *Global optimization of polynomials using the truncated tangency variety and sums of squares*, **SIAM Journal on Optimization**, Volume 19, Issue 2, pp. 941–951 (2008).
27. (with Hà Huy Vui), *Critical values of singularities at infinity of complex polynomials*, **Vietnam Journal of Mathematics**, 36 (2008), no. 1, 1–38.
28. (with Hà Huy Vui), *An estimation of the number of bifurcation values for real polynomials*, **Acta Mathematica Vietnamica**, 32 (2007), no. 2–3, 141–153.
29. *The degree of C^0 -sufficiency of analytic function germs with respect to an ideal*, **Vietnam Journal of Mathematics**, 35 (2007), no. 2, 187–199.
30. (with Hà Huy Vui) *Minimizing polynomial functions*, **Acta Mathematica Vietnamica**, 32 (2007), no. 1, 71–82.
31. *On the effective computation of Łojasiewicz exponents via Newton polyhedra*, **Periodica Mathematica Hungarica**, 54 (2007), no. 2, 201–213.
32. (with Hà Huy Vui) *On local Pareto optima of real analytic mappings*, **Acta Mathematica Vietnamica**, 30 (2005), no. 2, 191–202.
33. (with Hà Huy Vui) *Newton-Puiseux approximation and Łojasiewicz exponents*, **Kodai Mathematical Journal**, 26 (2003), no. 1, 1–15.
34. *Geometric monodromy of polynomials of two complex variables*, **Acta Mathematica Vietnamica**, 24 (1999), no. 3, 283–310.
35. (with Hà Huy Vui) *Topology of families of affine plane curves*, **Annales Polonici Mathematici**, 71 (1999), no. 2, 129–139.

36. (with Hà Huy Vui) *Remark on the equisingularity of families of affine plane curves*, **Annales Polonici Mathematici**, 68 (1998), no. 3, 275–280.
37. (with Hà Huy Vui) *Invariance of the global monodromies in families of polynomials of two complex variables*, **Acta Mathematica Vietnamica**, 22 (1997), no. 2, 515–526.