

Curriculum Vitae

Personal information

Name: Mach Nguyet Minh.

Born on 3rd July 1985. Vietnamese.

Female. Single.

Date of CV: 12 Nov 2013.

Department of Mathematics - IMNG

Chair of Optimization and Inverse Problems

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Education

- Ph.D. in Mathematics, Università di Pisa: Jan. 2009 - Dec. 2011.
Advisor: Prof. Giovanni Alberti. Thesis: *Weak solutions to rate-independent systems: Existence and Regularity*. Defense on 31 July 2012.
Referees: Prof. Maria Giovanna Mora and Prof. Riccarda Rossi.
Committee: Prof. Giovanni Alberti, Prof. Francesco Maggi and Prof. Matteo Focardi.
- B.S. in Mathematics and Computer Sciences (Honor Program), Vietnam National University at Ho Chi Minh City: Sep. 2003 - Sep. 2007.
Advisor: Prof. Dang Duc Trong. Thesis: *A nonlinear backward heat equation: Uniqueness, Regularization, and Error Estimates*. Defense on 10 July 2007.

Employment

- Nov. 2013 - Oct. 2016: Postdoc, Chair of Optimization and Inverse Problems, Department of Mathematics -IMNG, University of Stuttgart, Germany. Supervisor: Prof. Bastian von Harrach.
- Oct. 2012 - Sept. 2013: Postdoc, Archimedes Center for Modeling, Analysis and Computation, Department of Applied Mathematics, University of Crete, Heraklion, Greece. Supervisor: Prof. Athanasios Tzavaras.
- Jan. 2012 - Jul. 2012: Reseacher, Università di Pisa, Italy. Supervisor: Prof. Giovanni Alberti.
- Jul. 2007 - Jun. 2008: Assistant Actuary, Prudential Vietnam Assurance Company Ltd.

Research Interests

I am interested in mathematics analysis, and in particular in calculus of variation and its applications to partial differential equations and mechanics.

Research Articles

- [5] Mach Nguyet Minh, “Regularity of solutions to non-convex rate-independent systems in one-dimension”, accepted for publication in *Mathematische Nachrichten*. arXiv:1211.5804.
- [4] Mach Nguyet Minh, “BV solutions constructed by epsilon-neighborhood method”, will be considered for publication in *ESAIM: COCV*. arXiv:1209.1648.
- [3] Dang Duc Trong, Mach Nguyet Minh, Pham Ngoc Dinh Alain and Phan Thanh Nam, “Hölder-type approximation for the spatial source term of a backward heat equation”, *Numer. Funct. Anal. Optim.*, 31(12) (2010), 1386-1405.

- [2] Dang Duc Trong, Phan Thanh Nam and Mach Nguyet Minh, “Recovering a class of entire functions and application to heat equations”, Proceedings of the 7th Congress of Vietnamese Mathematicians 2008. *Vietnam J. Math.*, **37** (2009), no. 2-3, 399-417.
- [1] Phan Thanh Nam and Mach Nguyet Minh, “Proof of a conjecture on general means”, *JIPAM. J. Inequal. Pure Appl. Math.*, **9** (2008), no. 3, Article 86, 6 pp.

Citation until 27 April 2013: (MR Author ID for Mathscinet: 850465)

Article [1] has been cited in

- (a) Alfred Witkowski, O pewnej własności średnich potegowych, *Wiadomości Matematyczne* **45** (2009), no. 1, 49-50.
- (b) Martin Erickson, *Beautiful Mathematics*, Mathematical Association of America (2011).
- (c) Olivier de La Grandville, A new property of general means of order p with an application to the theory of economic growth. *Aust. J. Math. Anal. Appl.* **8** (2011).
- (d) Olivier de La Grandville, “How Much Should a Nation Save? A New Answer”, *Studies in Nonlinear Dynamics and Econometrics* **16** (2012); reprinted as Chapter 14 in *Frontiers of Economics and Globalization*, Emerald Group Publishing Limited, 2011.
- (e) Olivier de La Grandville, “On Poverty Traps and Equilibria in Growth Models”, *Journal of Reviews on Global Economics* **2** (2013), p. 25-30.

Article [3] has been cited in

- (a) D.D. Trong, P.T. Nam and P.T. Thuc, “The body force in a three-dimensional Lamé system: identification and regularization”, *Inverse Probl. Sci. Eng.*, **20** (2012), no. 4, p. 517-532.

Talks

- Dec 2012: Applied and Numerical Analysis Seminar, Department of Applied Mathematics, University of Crete, Greece.
- May 2013: Pure and Applied Mathematics Seminar, Department of Mathematics and Statistics, University of Cyprus.

Awards and Scholarships

- Galileo Galilei Scholarship, Università di Pisa, Jan. 2009 - Dec. 2011.
- Valedictorian of Vietnam National University at Ho Chi Minh City, 2007.
- Full scholarship of Vietnam National University for excellent students, Sept. 2003 - Sept. 2007.
- AmCham Scholarship for excellent undergraduate students, 2006.
- Third prize in Vietnam Mathematical Olympiad for undergraduate students, 2005.
- Third prize in Vietnam Mathematical Olympiad for high school students, 2003.

PhD courses attended

- Convex analysis.

- Measure theory.
- Foundations of geometry.
- Elements of partial differential equations.
- Elliptic equations.
- Evolution problems.
- Complements of functional analysis.
- Calculus of variations.
- Geometric measure theory.
- Optimal transportation: Theory and applications.

Schools and Conferences

- School and Workshop on “Geometric Measure Theory and Optimal Transport” (ICTP, Italy, 15/07 - 02/08/2013).
- Trimester at IHP in Spring 2013 “Variational and Spectral Methods in Quantum Mechanics” (Paris, France, 3-21 June 2013).
- Quasistatic and Dynamic Evolution Problems in Plasticity and Fracture (SISSA, Italy, 4-8 March 2013 & 15-19 April 2013).
- Nonlinear Hyperbolic PDEs, Dispersive and Transport Equations: Analysis and Control (SISSA, Italy, 16/05 - 15/07/2011).
- Sixth Summer School in Analysis and Applied Mathematics (Roma, Italy, 20/06/2011 - 24/06/2011);
- ERC Workshop on Optimal Transportation and Applications (Pisa, Italy, 12/10/2010 -16/10/2010);
- IHES Summer School: Singularity of PDEs (Paris, France, 19/07/2010 - 31/07/2010);
- GNAMPA-ERC Summer School: Analytic Techniques for Geometric and Functional Inequalities (Ischia, Italy, 13/06/2010 - 18/06/2010);
- SMI Summer school in Mathematics (Perugia, Italy, 27/07/2009 - 28/08/2009);

Reference letters can be asked to the following persons

- Professor Giovanni Alberti, Università di Pisa. E-mail: galberti1@dm.unipi.it.
- Professor Bastian von Harrach, University of Stuttgart. Email: harrach@math.uni-stuttgart.de.
- Professor Athanasios Tzavaras, University of Crete. E-mail: tzavaras@tem.uoc.gr.
- Professor Riccarda Rossi, Università di Brescia. E-mail: riccarda.rossi@ing.unibs.it.