

## CV - Alberto Abbondandolo

Born in Viareggio, Italy, on October 28, 1970.

**Business address.** Dipartimento di Matematica L. Tonelli, Università di Pisa, Largo B. Pontecorvo 5, 56127 Pisa, Italy. Tel. +39 050 2213242. Fax +39 050 2213224. [abbondandolo@dm.unipi.it](mailto:abbondandolo@dm.unipi.it)

### EDUCATION

**1989-1993** Student in Mathematics at Scuola Normale Superiore of Pisa and University of Pisa. *Laurea in Matematica* (the equivalent of the German Diploma) on November 25, 1993, supervisor Vieri Benci, Magna cum Laude.

**1994-1999** PhD student in Mathematics at Scuola Normale Superiore of Pisa. *Diploma di Perfezionamento* (PhD degree) on September 16, 1999. Supervisor Vieri Benci, Magna cum Laude.

### JOBS

**1995-2004** Ricercatore in Analisi Matematica (Research assistant in Mathematical Analysis) at Scuola Normale Superiore of Pisa. On leave from 1999 to 2001.

**1999-2000** Visiting Scholar, Courant Institute for Mathematical Sciences, New York University.

**2000-2001** Postdoctoral Associate (Courant Instructor) at the Courant Institute for Mathematical Sciences, New York University.

**2005-present** Associate Professor in Mathematical Analysis at Pisa University.

### AWARDS AND OTHER ACHIEVEMENTS

**2008** *Humboldt Research Fellowship for Experienced Researchers* for spending a research year in Leipzig.

**2005** International Award “Vincenzo Caglioti” for Mathematics (*Accademia dei Lincei* and *Accademia delle Scienze, detta dei XL*). A prize for young researchers below 35, awarded to mathematicians every 5 years.

**2001** The paper “Morse homology on Hilbert spaces”, *CPAM* 54 (2001), 689-760, has been selected for a Featured Review by the American Mathematical Society.

**1999** CNR Fellowship for spending a research year at the Courant Institute for Mathematical Sciences.

### ORGANIZATION OF SCIENTIFIC ACTIVITIES

- 2010-present** Member of the “Giunta di Dipartimento” and of the “Comitato di Presidenza”, two advisory boards which assist the director of the Mathematics Department and the Dean of the Science Faculty.
- 2009** Co-organizer of the Workshop *Variational methods in Hamiltonian systems*, Max Planck Institut für Mathematik in den Naturwissenschaften, Leipzig, January 16-17.
- 2007-2009** Member of the Rating Committee of the University of Pisa.
- 2006-present** Section editor of the *Journal of Fixed Point Theory and Applications*, Springer.
- 2006-present** Member of the PhD Committee for Mathematics, University of Pisa.
- 2005-2007** Organizer of the *Analysis Seminar* of the Mathematics Department, University of Pisa.
- 2005** Organizer of the session “Topics related to the variational methods” in a conference in honor of J. Dugundji “Fixed point theorems and its applications”, Bedlewo, Poland, August 1-5, 2005.
- 2004** Co-organizer of the Winter School *Two weeks in Global Analysis*, held at the Center for Mathematical Research Ennio De Giorgi, Pisa, February 14-26, 2004.
- 2003-04** Editor of the web-site “Miscellanea Conti”, an on-line collection of expository papers in mathematics, Center for Mathematical Research Ennio De Giorgi, Pisa.

## SCIENTIFIC VISITS

- 2010** One month visit at the Max Planck Institut für Mathematik in den Naturwissenschaften of Leipzig, invited by Prof. Matthias Schwarz.
- 2009** Cambridge University, UK, invited by Prof. Gabriel Paternain. Rutgers University, USA, invited by Prof. Abbas Bahri. Universität Magdeburg, invited by Prof. Guofang Wang.
- 2008-2009** One year Sabbatical at the University of Leipzig, Germany, with a Humboldt Fellowship for Experienced Researchers.
- 2008** Vrije Universiteit Amsterdam, The Netherlands, invited by Prof. Robert Vanderhorst. Humboldt Fellow for one year at the Max Planck Institut für Mathematik in den Naturwissenschaften of Leipzig (September 2008 - August 2009).
- 2007** Cologne University, Germany, invited by Prof. Hansjörg Geiges.
- 2006** Lehigh University, US, invited by Prof. Huai-Dong Cao.
- 2005** Leipzig University, Germany, invited by Prof. Matthias Schwarz.

- 2004** Courant Institute of New York, US, invited by Prof. Helmut Hofer and Prof. Tobias Colding.
- 2002** Leipzig University, Germany, invited by Prof. Matthias Schwarz.  
Waseda University of Tokyo, invited by Prof. Kazunaga Tanaka.
- 2001** Michigan State University, US, invited by Prof. Casim Abbas.  
Université Paris Dauphine, France, invited by Prof. Eric Seré.
- 2000** Max Planck Institute of Leipzig, Germany, invited by Prof. Matthias Schwarz.
- 1999-2000** Courant Institute of New York, US, invited by Prof. Louis Nirenberg. Visiting scholar for one year on an Italian grant by CNR.  
Université de Montreal, Canada, invited by Prof. Andrzej Granas.
- 1998** Universidad de Sao Paulo, Brasil, invited by Prof. Paolo Piccione.  
Universidad de Campinas, Brasil, invited by Prof. Francesco Mercuri.  
Universidad de Concepcion, Chile, invited by Prof. Juan Molina.
- 1996** E.T.H. in Zurich, Switzerland, invited by Prof. Helmut Hofer.  
Tel-Aviv University, Israel, invited by Prof. Joseph Bernstein.

## INVITED LECTURES AT CONFERENCES AND SCHOOLS

1. Kyoto, Japan, February 14-18, 2011, “Middle-dimensional squeezing and nonsqueezing behavior of symplectomorphisms”, *Workshop on Symplectic Geometry and Topology*, Kyoto University.
2. Zurich, Switzerland, November 8-12, 2010, “Stable manifolds in holomorphic dynamics”, *Edi-Fest: From Dynamical Systems to Symplectic Topology*, Conference in honor of Edi Zehnder on the occasion of his 70th birthday, ETH.
3. Leiden, Holland, August 2-6, 2010, “How far can one go without Floer homology?”, *Symplectic techniques in conservative dynamics*, Lorentz Center.
4. Seoul, Korea Institute for Advanced Study, July 12-16, 2010, *Summer school on Hamiltonian dynamics and symplectic geometry*. Four lectures “Periodic Hamiltonian orbits by variational methods”.
5. San Antonio, TX, USA, September 23-27, 2009, “On Rabinowitz-Floer homology”, *Variational and topological methods in nonlinear analysis*, Conference in honor of the 60th birthday of Vieri Benci.
6. Rio de Janeiro, Brasil, August 3-7, 2009, “Estimates and computations in Rabinowitz-Floer homology”, *Workshop on conservative dynamics and symplectic geometry*, IMPA.

7. Oberwolfach, Germany, July 6-10, 2009, “Estimates and computations in Rabinowitz-Floer homology”, *Workshop Dynamische Systeme*, MFO.
8. Montreal, Canada, May 19-24, 2008, “A cobordism argument in Floer homology”, *Workshop on Floer theory and symplectic dynamics*.
9. Otranto, Italy, May 1-5, 2008, “String topology and Floer homology”, Convegno del PRIN: *Metodi Variazionali e Topologici nello Studio dei Problemi Nonlineari*.
10. Paris, France, December 11-20, 2007, “High action orbits of Hamiltonian systems and their asymptotic Maslov index”, *Atelier sur les aspects mathématiques de la mécanique classique*, Institut Henri Poincaré.
11. Tianjin, China, May 20-26, 2007, “The classification of geodesics on globally hyperbolic Lorentzian manifolds”, *International conference on variational methods*.
12. Bedlewo, Poland, June 26-30, 2006, “A Morse complex for geodesics on globally hyperbolic Lorentzian manifolds”, *Jean Leray International mathematical conference*.
13. Guanajuato, Mexico, December 5-9, 2005, “A Morse complex for geodesics on Lorentzian manifolds, I”, *Topological and variational methods in partial differential equations*.
14. Pisa, Italy, October 17-22, 2005, *School in Nonlinear Analysis and Calculus of Variations*, dedicated to Giovanni Prodi for his 80th birthday. Four lectures “On the Morse complex for infinite dimensional manifolds”.
15. Bedlewo, Poland, August 1-5, 2005, “The Lagrangian versus the Hamiltonian action functional”, *Fixed point theory and its applications*, International Conference in memory of Jim Dugundji.
16. Oberwolfach, Germany, July 10-16, 2005, “On the Floer homology of cotangent bundles”, *Dynamical systems*.
17. Erice, Italy, April 14-22, 2005, “On the Floer homology of cotangent bundles”, *International School of Mathematics “G. Stampacchia” - 42nd Workshop: Variational methods in nonlinear analysis*. Dedicated to Louis Nirenberg and Giovanni Prodi in occasion of their 80th birthday.
18. Montreal, Canada, June 21 - July 2, 2004, *Morse theoretic methods in nonlinear analysis and symplectic topology*, NATO Summer School (5 lectures “On the Morse complex for infinite dimensional manifolds”).
19. Bedlewo, Poland, June 23-28, 2003, “A Morse complex for infinite dimensional manifolds, I”, *Topological and Variational Methods in Nonlinear Analysis 2003*.
20. Torino, Italy, June 19-20, 2003, “Intersection of stable and unstable manifolds: dimension and orientation”, Workshop *Elliptic and hypoelliptic equations* INDAM Conference *Microlocal analysis and related subjects*.

21. Leipzig, Germany, November 28-30, 2002, “A Morse complex for Lorentzian geodesics”, *Prospects in geometry*.
22. Pisa, Italy, November 7-9, 2002, “A Morse complex for Hilbert manifolds”, *Recent advances in calculus of variations and PDE's - A young researchers meeting*.
23. Pisa, Italy, June 8-12, 2002, “A Morse complex for Hilbert manifolds”, *First Joint Meeting UMI-AMS*.
24. Oberwolfach, Germany, October 8-12, 2001, “Floer homology for symplectic fixed points, II Moduli spaces and transversality”, in Arbeitsgemeinschaft *Arnold conjecture and Floer homology*.
25. Oberwolfach, Germany, July 15-21, 2001, “A Morse complex for semi-Riemannian geodesics”, *Dynamische Systeme*.
26. Bedlewo, Poland, June 2001, “Ordinary differential operators in Hilbert spaces”, *Topological and Variational Methods in Nonlinear Analysis 2001*.
27. Warsaw, Poland, May 8-20, 2000, “Morse homology on Hilbert spaces”, *Infinite-dimensional Conley index and Floer homology*.
28. Bedlewo, Poland, June 19-24, 2000, “Morse homology on Hilbert spaces, I”, *Topological and Variational Methods in Nonlinear Analysis 2000*.
29. Oberwolfach, Germany, July 1999, “Infinite dimensional Morse homology and subharmonic solutions for Hamiltonian systems”, *Dynamische Systeme*.
30. Oberwolfach, Germany, March 1999, “Subharmonic solutions of Hamiltonian systems”, *Gewöhnliche Differentialgleichungen*.
31. Bedlewo, Poland, November 1998, “Morse theory for strongly indefinite functionals”, *Lusternik Workshop*.
32. Torino, September 1998, “Soluzioni periodiche di sistemi Hamiltoniani bi-dimensionali”, *Settimana Nonlineare*, Politecnico of Torino.
33. Campinas, Brasil, August 1998, “Morse theory for strongly indefinite functionals”, *II International Workshop on Nonlinear PDEs*.
34. Cortona, Italy, 1996, “Morse theory for strongly indefinite functionals”, *Convegno Scuola Normale di Pisa - Bar Ilan University of Tel Aviv*.

## REFEREE ACTIVITY

**Journals.** Referee for many journals, among which: *Advances in Mathematics*, *Annali della Scuola Normale Superiore*, *Calculus of Variations*, *Compositio Mathematica*, *Control Optimization and Calculus of Variations*, *Discrete and Continuous Dynamical Systems*, *Duke Journal of Mathematics*, *Journal de Mathématiques Pures et*

Appliquées, Journal of Differential Equations, Journal of Functional Analysis, Journal of Mathematical Physics, Journal of Modern Dynamics, Journal of Symplectic Geometry, Journal of Topology and Analysis, Mathematical Proceedings of the Cambridge Philosophical Society, Mathematische Zeitschrift, Nonlinear Differential Equations and Applications.

**Other.** Referee for the series Universitext, Springer Verlag. Referee for European research grants. Twice member of an evaluation committee for a research assistant position (Roma Tor Vergata, Roma La Sapienza).

## TEACHING ACTIVITY

**2010/11** *Analysis*, Bachelor in Computer Science (University of Pisa).

*Functional Analysis*, Master in Mathematics (University of Pisa).

**2009/10** *Functional Analysis*, Master in Mathematics (University of Pisa).

*Analysis II*, Bachelor in Engineering (University of Pisa).

**2007/08** *Nonlinear Analysis*, Master in Mathematics (University of Pisa).

*Differential operators*, Bachelor in Mathematics (University of Pisa).

*Advanced Combinatorics*, Master in Computer Science (University of Pisa).

**2006/07** *Analysis III and IV*, Bachelor in Physics (University of Pisa).

*Calculus of Variations*, Bachelor in Mathematics (University of Pisa).

**2005/06** *Analysis I and II*, Bachelor in Physics (University of Pisa).

*Advanced Analysis*, Master in Mathematics (University of Pisa).

**2004/05** *Advanced Analysis* for fourth year students in Mathematics (University of Pisa).

**2003/04** *Advanced Analysis* for fourth year students in Mathematics (University of Pisa).

T.A. for the *Analysis* class for first year students (Scuola Normale Superiore of Pisa).

**2002/03** T.A. for the *Analysis* class for first year students (Scuola Normale Superiore of Pisa).

**2001/02** PhD class *Floer homology* (Scuola Normale Superiore of Pisa).

T.A. for the *Analysis* class for first year students (Scuola Normale Superiore of Pisa).

Short course *Hamiltonian systems and the Arnold conjectures* (University of Pisa).

**2000/01** *Calculus I* (New York University).

*Intensive Calculus II* (New York University).

**2000** Short course *Introduction to the Arnold conjectures and to Floer homology* (S.I.S.S.A., Trieste).

**1998/99** *Mathematical methods* for second year students in Chemistry (Scuola Normale Superiore of Pisa).

T.A. for *Analysis I*, for first year students in Engineering (University of Pisa).

**1997/98** *Mathematical methods* for second year students in Chemistry (Scuola Normale Superiore of Pisa).

T.A. for *Analysis III* (University of Pisa).

**1995/96.** T.A. for an experimental class in *Analysis*, first year students in Mathematics (University of Pisa).

**1994/95.** T.A. for the *Analysis* class for second year students (Scuola Normale Superiore of Pisa).

Short course *Geodesic flows on negatively curved manifolds*, inside the *Dynamical systems* course (Scuola Normale Superiore of Pisa).

**1993/94** T.A. for *Analysis* for second year students in Computer Science (University of Pisa).

## THESIS ADVISOR

1. Luca Asselle, Bachelor Thesis, University of Pisa, *Billiards and Aubry-Mather theory for twist maps*, 2010.
2. Gabriele Benedetti, fourth year Colloquium, Scuola Normale, *J-holomorphic curves and the Weinstein conjecture*, 2010.
3. Marco Mazzucchelli, PhD Thesis, University of Pisa, *Periodic orbits of Tonelli Lagrangian systems*, 2009.
4. Daniele Garrisi, PhD Thesis, Scuola Normale, *Ordinary differential equations in Banach spaces and the spectral flow*, 2008.
5. Raul Tozzi, Master Thesis, University of Pisa, *Every infinite dimensional Hilbert manifold has an open embedding into a Hilbert space*, 2007.
6. Mircea Petrache, third year Colloquium, Scuola Normale, and Bachelor Thesis, University of Pisa, *The non-squeezing theorem of Gromov*, 2006.
7. Alessandro Bernardi, Bachelor Thesis, University of Pisa, *The Weyl problem*, 2006.
8. Davide Schipani, third year Colloquium, Scuola Normale, and Bachelor Thesis, University of Pisa, *The Poincaré last geometric theorem*, 2005.

At the moment I have two Bachelor students and two Master students.

## COMMITTEES

1. Member of the Admission Committee for the *Corso Ordinario della Classe di Scienze* of Scuola Normale Superiore, 2010.

2. Many times member of the Admission Committee for the PhD School of Scuola Normale Superiore.
3. Many times member of the Admission Committee for the Scuola Galileiana of Padova.
4. Many times member of the Bachelor, Master and PhD Committees at the University of Pisa.
5. External referee for the PhD Thesis of Sergio Rolando (Torino, 2006), Sonja Hohloch (Leipzig, 2007) and Remi Janner (ETH, Zurich, 2010).

## POPULARIZATION OF MATHEMATICS

1. One lecture and one lab on *Mathematical billiards* at the AlfaClass Update Mathematics Spring School, Progetto Diderot, Fondazione CRT, Biella, May 20-22, 2011.
2. Series of lectures and labs on *Game theory* at the Istituto Tecnico di Pontedera, Progetto Lauree Scientifiche, April-May 2011.
3. Mathematical lab *Mathematical billiards*, Settimana di orientamento in Matematica (a week-long stage for high school students who would like to study mathematics), University of Pisa, 2011.
4. Mathematical lab *How to analyse a game*, Settimana di orientamento in Matematica (a week-long stage for high school students who would like to study mathematics), University of Pisa, 2010.
5. Conference *The time arrow* at the yearly stage organized by Scuola Normale Superiore, Rovereto, 2009.
6. Mathematical lab *Games and dilemmas*, Settimana di orientamento in Matematica (a week-long stage for high school students who would like to study mathematics), University of Pisa, 2008.
7. Conference *The time arrow*, Mathematical Festival “TrePerTre” of Suvereto, 2008.
8. Mathematical lab *Proofs and refutations: from polyhedra to robots*, Settimana di orientamento in Matematica (a week-long stage for high school students who would like to study mathematics), University of Pisa, 2007.
9. Co-organizer of the mathematical competition “L’eroe mai cantato”, University of Pisa, 2007.
10. Conference *The EPR paradox and the Bell inequalities* at the yearly stage organized by Scuola Normale Superiore, Camigliatello Silano, 2007.
11. Conference *Proofs and refutations* at the yearly stage organized by Scuola Normale Superiore, Colle Val d’Elsa, 2006.
12. Series of lectures *Combinatorics* at the Liceo Scientifico of Forte dei Marmi, 2006.

13. *Proofs and refutations*, series of lectures organized by the University of Pisa for high school students, 2001.
14. Series of lectures *Dynamical systems*, Winter School for biology students, Venice, 1998.

## PUBLICATIONS

### RESEARCH PAPERS

1. A. Abbondandolo, M. Schwarz – Floer homology of cotangent bundles and the loop product, *Geometry & Topology* 14 (2010), 1569-1722.
2. A. Abbondandolo and M. Schwarz – Estimates and computations in Rabinowitz-Floer homology, *Journal of Topology and Analysis* 1 (2009), 307-405.
3. A. Abbondandolo, M. Schwarz – A smooth pseudo-gradient for the Lagrangian action functional, *Adv. Nonlinear Studies* 9 (2009), 597-623.
4. A. Abbondandolo, P. Majer – Infinite dimensional Grassmannians, *J. Operator Theory* 61 (2009), 16-62.
5. A. Abbondandolo, M. Schwarz, A. Portaluri – The homology of path spaces and Floer homology with conormal boundary conditions, *J. fixed point theory appl.* 4 (2008), 263-293.
6. A. Abbondandolo, P. Majer – A Morse complex for Lorentzian geodesics, *Asian J. Math.* 12 (2008), 299-320.
7. A. Abbondandolo, A. Figalli – Invariant measures of Hamiltonian systems with prescribed asymptotic Maslov index, *J. fixed point theory appl.* 3 (2008), 95-120.
8. A. Abbondandolo and A. Figalli – High action orbits for Tonelli Lagrangians and superlinear Hamiltonians on compact configuration spaces, *J. Differential Equations*, 234 (2007), 626-653.
9. A. Abbondandolo, M. Schwarz – On the Floer homology of cotangent bundles, *Communications in Pure and Applied Mathematics* 59 (2006), 254-316.
10. A. Abbondandolo, P. Majer – On the global stable manifold, *Studia Math.*, 177 (2006), 113-131.
11. A. Abbondandolo, P. Majer – A Morse Complex for infinite dimensional manifolds, Part I. *Advances in Mathematics*, 197 (2005), 321-410.
12. A. Abbondandolo, P. Majer – When the Morse index is infinite, *International Mathematics Research Notices* 71 (2004), 3839-3854.
13. A. Abbondandolo – On the Morse index of Lagrangian systems, *Nonlinear Analysis: Theory, Methods, and Applications* 53 (2003), 551-566.

14. A. Abbondandolo, P. Majer – Ordinary differential operators on Hilbert spaces and Fredholm pairs, *Mathematische Zeitschrift* 243 (2003), 525-562.
15. A. Abbondandolo, V. Benci, D. Fortunato and A. Masiello – On the Morse inequalities for geodesics on Lorentzian manifolds, *Math. Res. Lett.* 10 (2003), 435–445.
16. A. Abbondandolo and V. Benci – Solitary waves and Bohmian mechanics, *Proc. Nat. Acad. Sci.* 99 (2002), 15257-15261.
17. A. Abbondandolo, P. Majer – Morse homology on Hilbert spaces, *Communications in Pure and Applied Mathematics*, 54 (2001), 689-760.
18. A. Abbondandolo and J. Molina – Index estimates for strongly indefinite functionals, periodic orbits and homoclinic solutions of first order Hamiltonian systems, *Calc. Var.* 11 (2000), 395-430.
19. A. Abbondandolo – Morse theory for asymptotically linear Hamiltonian systems, *Nonlinear Anal. TMA* 39 (2000), 997-1049.
20. A. Abbondandolo – Subharmonics for two-dimensional Hamiltonian systems, *NoDEA Nonlinear Differential Equations Appl.* 6 (1999), 341-355.
21. A. Abbondandolo – An H-theorem for a class of Markov processes, *Stochastic Anal. Appl.* 17(1999), 131-136.
22. A. Abbondandolo – A new cohomology for the Morse theory of strongly indefinite functionals on Hilbert spaces, *Topol. Methods Nonlinear Anal.* 9 (1997), 325-382.
23. A. Abbondandolo – On the homotopy type of VMO, *Topol. Methods Nonlinear Anal.* 7 (1996), 431-436.
24. A. Abbondandolo and V. Benci – Rotation numbers for Lagrangian systems and Morse theory, *Banach Center Publications* 35 (1996), 29-38.
25. A. Abbondandolo – Un indice medio per misure invarianti rispetto al flusso Lagrangiano, *Rend. Mat. Acc. Lincei* 5 (1994), 213-221.

## MONOGRAPHS AND SURVEYS

26. A. Abbondandolo – The minimax principle in the calculus of variations , *Encyclopedia of Mathematical Physics*, eds. J.-P. Francoise, G. L. Naber, and Tsou S. T., Oxford: Elsevier 2006, volume 3, page 432.
27. A. Abbondandolo and P. Majer – Lectures on the Morse complex for infinite dimensional manifolds, in "Morse theoretic methods in nonlinear analysis and in symplectic topology", pp. 1-74, NATO Science Series II: Mathematics, Physics and Chemistry, P. Biran, O. Cornea, and F. Lalonde Eds, Springer, 2006.

28. A. Abbondandolo and M. Schwarz – Notes on Floer homology and loop space homology, in "Morse theoretic methods in nonlinear analysis and in symplectic topology", pp. 75-108, NATO Science Series II: Mathematics, Physics and Chemistry, P. Biran, O. Cornea, and F. Lalonde Eds, Springer, 2006.
29. A. Abbondandolo – *Morse theory for Hamiltonian systems*, Research Notes in Mathematics, CRC Press, Boca Raton, FL, 2001.
30. A. Abbondandolo – *Morse theory for strongly indefinite functionals and Hamiltonian systems*, PhD Thesis, Scuola Normale Superiore, Pisa, 1999.

## PREPRINTS

31. A. Abbondandolo and S. Matveyev – Middle dimensional squeezing and non-squeezing behavior of symplectomorphisms, [arXiv:1105.2931v1](#) [math.SG] 2011.
32. M. Abate, A. Abbondandolo and P. Majer – Stable manifolds for holomorphic automorphisms, [arXiv:1104.4561v1](#) [math.DS] 2011.
33. A. Abbondandolo and M. Schwarz – On product structures in Floer homology of cotangent bundles, Preprint 76/2010 Max Planck Institut für Mathematik in den Naturwissenschaften, Leipzig.
34. A. Abbondandolo – Periodic Hamiltonian orbits by variational methods, Notes of a series of lectures given at the *Summer school on Hamiltonian dynamics and symplectic geometry*, held at the Korea Institute for Advanced Study, July 12-16, 2010. Notes typed by Jungsoo Kang. To appear.

## POPULARIZATION OF MATHEMATICS

35. A. Abbondandolo, G. Gaiffi – Modelli e realtà. A series of 19 short articles which explain the use of mathematics to model various kinds of problems. They are part of the first two volumes of a textbook for scientific oriented high schools. Edizioni CEDAM - De Agostini. In print.
36. A. Abbondandolo – Il paradosso EPR e le disuguaglianza di Bell, preprint 2010.
37. A. Abbondandolo – La freccia del tempo, *XlaTangente* 11 (2008), 17-21.
38. A. Abbondandolo, M. Giaquinta, F. Ricci (editors) – Ricordando Franco Conti, Pubblicazioni della Scuola Normale Superiore di Pisa, 2004.

## LANGUAGES

Italian is my mother tongue. I am almost as fluent in English as in Italian and I have regularly taught in English in American Universities. My German is decent (I have spent one full year in Germany, I have taken various classes, I have a C1 Goethe-Institut Zertifikat and at the moment I am taking a C2 class). My French and my Spanish allow me to follow a conversation and to be understood, but no more than that.