



CURRICULUM VITAE

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Current position

Research Assistant by Department of Mathematics, University of Trento

Personal data

Age/Birthday	30 - 21/01/1981
Place of birth	Bolzano, ITALY
Nationality	Italian

Education

24/09/2003 degree in mathematics by University of Trento
20/07/2005 master degree in mathematics by University of Trento
12/02/2009 PhD in mathematics by University of Trento

Language skills

Italian: native language

English: good reading, writing and verbal skills
German: good reading, writing and verbal skills

Professional experience

- 09/11/2008 – 09/02/2009 research grant at the Department of Mathematics, University of Trento. Research topic: "Intrinsic regular hypersurfaces in Heisenberg groups and non linear first-order PDEs", European Project GALA
- 01/03/2009 – 31/08/2009 Post Doc position at the Department of Mathematics, University of Trento. Research topic: "Rettificability in homogeneous groups" European Project GALA
- 2009-2010 position as secondary school teacher in mathematics at the "D.Chiesa" institute of Bolzano
- 2010-2011 position as secondary school teacher in mathematics and physics at the scientific high school "E. Torricelli" of Bolzano
- 11/03/2011 – 10/03/2012 Post Doc position at the Department of Mathematics, University of Trento. Research topic: "Intrinsic Lipschitz graphs in Heisenberg groups, non linear first-order Pdes and applications to minimal surfaces" Project PRIN

Teaching experience

a.y. 2006/07:

- Teacher assistant of the course "*Analisi Matematica 3 u.d.*", degree course in physics, faculty of science MM.FF.NN., university of Trento.

a.y. 2007/08:

- Teacher assistant of the course "*Analisi Matematica*", bachelor in logistic and production engineering and bachelor in agricultural science and economics, faculty of science e technology, free university of Bolzano.
- Teacher assistant of the course "*Analisi Matematica 3 u.d.*", degree course in physics, faculty of science MM.FF.NN., university of Trento.

a.y. 2008/09:

- Teacher assistant of the course "*Analisi Matematica II*", degree course in physics, faculty of science MM.FF.NN., university of Trento.
- Teacher assistant of the course "*Analisi Matematica*", bachelor in logistic and production engineering and bachelor in agricultural science and economics, faculty of science e technology, free university of Bolzano.

a.y. 2009/10:

- Teacher of the course "*Precorso di matematica*", bachelor in logistic and production engineering and bachelor in agricultural science and technology, faculty of science e technology, free university of Bolzano.
- Teacher assistant of the course "*Analisi Matematica I*", degree in mathematics and physics, faculty of science MM.FF.NN., university of Trento.
- Teacher assistant of the course "*Analisi Matematica II*", degree course in mathematics, faculty of science MM.FF.NN., university of Trento.
- Teacher assistant of the course "*Matematica e statistica*", bachelor in agricultural science and technology, faculty of science e technology, free university of Bolzano.
- Teacher assistant of the course "*Matematica I*", bachelor in logistic and production engineering, faculty of science e technology, free university of Bolzano.
- Teacher assistant of the course "*Matematica II*", bachelor in logistic and production engineering, faculty of science e technology, free university of Bolzano.

a.y. 2010/11:

- Teacher of the course "*Precorso di matematica*", bachelor in logistic and production engineering and bachelor in agricultural science and technology, faculty of science e technology, free university of Bolzano.
- Teacher assistant of the course "*Analisi Matematica I*", degree course in mathematics and physics, faculty of science MM.FF.NN., university of Trento.
- Teacher assistant of the course "*Analisi Matematica II*", degree course in mathematics, faculty of science MM.FF.NN., university of Trento.
- Teacher assistant of the course "*Matematica e statistica*", bachelor in agricultural science and technology, faculty of science e technology, free university of Bolzano.
- Teacher assistant of the course "*Matematica I*", bachelor in logistic and production engineering, faculty of science e technology, free university of Bolzano.
- Teacher assistant of the course "*Matematica II*", bachelor in logistic and production engineering, faculty of science e technology, free university of Bolzano.

Publications

In refereed journals

1. F. Bigolin, F. Serra Cassano "*Intrinsic regular Graphs in Heisenberg group vs. weak solutions of non linear first-order PDEs*", Adv. Calc. Var. 3 (2010), 69-97

2. F. Bigolin, D. Vittone "*Some remarks about parametrizations of intrinsic regular surfaces in the Heisenberg group*", Publ. Mat. 54 vol. 1 (2010), 159-172
3. F. Bigolin, F. Serra Cassano, "*Distributional solutions of Burgers' equation and intrinsic regular graphs in Heisenberg groups*", J. Math. Anal. Appl. 366 (2010), 561-568
4. F. Bigolin, "*Ipersuperfici regolari intrinseche nel gruppo di Heisenberg e soluzioni deboli di EDP non lineari del primo ordine*", La Matematica nella Società e nella Cultura-Rivista dell'Unione Matematica Italiana, Serie I, Vol.III, Aprile 2010, 19-22
5. F. Bigolin, "*Existence of potential functions of intrinsic gradients in Heisenberg groups*", accepted paper in Int. J. Pure Appl. Math. 2011

Conference

6. "*Forms for Integrodifferential Equations*", talk in the Final Workshop of Tulka-Internetseminar, Heat Kernels, organised by the university of Ulm, in the Fabri Institut in Blaubeuren, Germany, 11/07 - 17/07/2006
7. "*Alcuni aspetti del formalismo Lagrangiano e Hamiltoniano*" seminar by the department of mathematics of the university of Trento, 4/10/2006
8. "*Grafici intrinseci nel gruppo di Heisenberg e leggi di conservazione*" seminar by the department of mathematics of the university of Bologna, 05/02/2008.
9. "*Grafici intrinseci nel gruppo di Heisenberg e leggi di conservazione*" talk in the XVIII National conference of Calculus of Variation, organised by the department of mathematics of the university of Trento and by CIRM in Levico Terme (Trento) 10/02 - 15/02/2008.
10. "*Grafici intrinseci nel gruppo di Heisenberg e soluzioni d'entropia dell'equazione di Burgers*" seminar by the department of mathematics of the university of Pisa, 21/05/2008.
11. "*Intrinsic differentiability in Heisenberg groups and weak solutions of conservation laws*" talk in the conference "Mathematics from and for young people, Problems in Calculus of Variations and Partial Differential Equations" by the department of mathematics of the university of Trento, 24/06/2009
12. "*Un'introduzione al gruppo di Heisenberg e alle ipersuperfici H-regolari*", seminar by the free University of Bolzano, 11/03/2011
13. "*Caratterizzazioni di ipersuperfici regolari intrinseche nel gruppo di Heisenberg*" 30' talk at the XIX Congress U.M.I., Bologna 12/09 - 17/09/2011
14. "*Intrinsic regular hypersurfaces in Heisenberg groups and weak solutions of conservation laws*" POSTER in the "International Conference of sub-

Riemannian Geometry and Vision", European project GALA, Bologna 31/08
- 04/09/2009.

Preprints and working papers

15. F. Bigolin, A. Pinamonti, "*Regularity result for a class of obstacle problems in Heisenberg groups*", Preprint 2011 forthcoming
16. F. Bigolin, G. H. Greco, "*Geometric Characterizations of C^1 Manifolds in Euclidean spaces by tangent cones*" Preprint 2011 forthcoming
17. F. Bigolin "*Tangency and Paratangency to H -regular hypersurfaces in Heisenberg groups*" Preprint 2011 forthcoming

Books

18. F. Bigolin, "*Intrinsic regular hypersurfaces and PDEs, the case of the Heisenberg Group*" LAP Lambert Academic Publishing 2010, ISBN 978-3-8383-9825-9
19. F. Bigolin, S. Mazzucchi, "*Esercizi di Calcolo infinitesimale e integrale, Vol. 1*", ARACNE editrice 2011, in print