

# CURRICULUM VITAE

Paolo Baiti

## Personal information

Name: Baiti Paolo  
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Nationality: Italian  
Born: Udine, 06/10/1968.



## Current position

From 01/11/1999 - today  
University of Udine, Department of Mathematics, Computer Science and Physics  
Position: Assistant Professor

## Education

- University of Trieste a.a. 1987–1991  
Title: Degree in Mathematics, 1993
- S.I.S.S.A. Scuola Internazionale di Studi Superiori Avanzati, Trieste, a.a. 1993–1996  
Title: Ph.D. in Functional Analysis, 1997

**Mother tongue:** Italian

## Other Languages:

English (Reading: good. Writing: good. Spoken: good.)  
French (Reading: elementary. Writing: elementary. Spoken: elementary.)

## Main Research Interest

- conservation laws
- dynamical systems and ordinary differential equations
- traffic on networks

## Scientific publications

In the field of Conservation Laws I published nearly twenty research works on national and international scientific journals of good quality.

## Research Projects

TMR HCL Hyperbolic Conservation Laws, 1997-2000;  
PRIN 2000 “Problemi di evoluzione non lineari”, 2001–2002;  
RTN HYKE “Hyperbolic and Kinetic Equations”, 2002–2005;  
PRIN 2005 “Dinamica dei fluidi e leggi di conservazione”, 2006–2007;  
PRIN 2007 “Sistemi non lineari di leggi di conservazione e fluidodinamica”, 2008–2010;  
GNAMPA 2005 “Sistemi di leggi di conservazione ed equazione di Boltzmann”, 2005;  
GNAMPA 2006 “Problemi iperboliche non lineari”, 2006;  
GNAMPA 2008 “Problemi di controllo per equazioni alle derivate parziali non lineari”, 2008;  
PRIN 2009 “Sistemi iperboliche di leggi di conservazione: regolarità delle soluzioni, problemi di controllo e limiti singolari”, 2011–2013.  
PRIN 2012 “Equazioni a derivate parziali nonlineari di tipo iperbolico, dispersivo ed equazioni di trasporto: aspetti teorici e applicativi”, 2014–2017.  
GNAMPA 2015 “Sistemi iperboliche dissipativi di leggi di bilancio”, 2015.  
GNAMPA 2017 “Equazioni iperboliche con termini nonlocali: teoria e modelli”, 2017.

## PhD theses supervisions

Edda Dal Santo, “Global existence for a hyperbolic model of multiphase flows with few interfaces”, 2016.

## Conferences and seminars

Communication: *The Semigroup generated by a system of conservation laws with coinciding shock and rarefaction curves with large data*, “Euroconference on Hyperbolic Conservation Laws and Numerical Analysis”, Crete (Greece), August 1995.

Communication: *Semicontinuit  inferiore per lunghezze pesate di curve in BV*, “Giornate di studio su Problemi Iperbolici”, Turin, October 1996.

Seminar: *Nonclassical shocks and the Cauchy problem for nonconvex conservation laws*, Ecole Polytechnique, Paris, 1997.

Main speaker at the conference “Hyperbolic Systems of Conservation Laws”, Lisbon, 22-24 April 1999. Communication: *Non-classical solutions and the Cauchy problem for scalar conservation laws: existence and uniqueness*.

Communication: *Blowup in  $L^\infty$  per una classe di sistemi genuinamente nonlineari di leggi di conservazione*, IPERBS 2000, “Problemi di tipo iperbolico” VIII incontro nazionale, Brescia, 30 November - 2 December 2000.

Seminar: *Instability of Finite Difference Schemes for Hyperbolic Conservation Laws*, S.I.S.S.A. Trieste, 16 March 2005.

Communication: *Instability of Finite Difference Schemes for Hyperbolic Conservation Laws*, “Fourth meeting on Hyperbolic Conservation Laws: Recent results and Research perspectives”, S.I.S.S.A. Trieste, 13-14 June 2005.

Communication: *Global Solutions for a Model of Two-Phase Flow*, “XV International Conference on Hyperbolic Problems: Theory, Numerics, Applications”, IMPA, Rio de Janeiro, Brazil, 28 July - 1 August 2014.

Communication: *Global existence for a model of multi-phase flow with one or two interfaces*, “11th Meeting on Nonlinear Hyperbolic PDEs and Applications - On the occasion of the 60th birthday of Alberto Bressan”, S.I.S.S.A., Trieste, 13-17 June 2016.

### **Other activities**

Organization of the “Second TMR Euroconference on Hyper. Systems of Conservation Laws: theory and applications”, Trieste, 1998.

Scientific referee for the international mathematical journals “Discrete and Continuous Dynamical System-A”, “IMA Journal of Applied Mathematics”, “Indiana University Mathematics Journal”, “Journal of Evolution Equations”, “Journal of Elasticity”, “Journal of Hyperbolic Differential Equations”, “Networks and Heterogeneous Media”, “Portugaliae Mathematica”, “SIAM Journal of Mathematical Analysis”.

### **Teaching activity**

Teaching assistant of Mathematical Analysis I, degree course in Mathematics, a.a. 1999/2000.

Teaching assistant of Mathematical Analysis II, degree course in Mathematics, a.a. 2000/2001.

Teaching assistant of Mathematical Analysis, degree course in Computer Science and T.W.M., aa.aa. 2000/2001, 2001/2002, 2002/2003.

Teaching of Mathematics, degree course in “Scienze della Produzione Animale”, aa.aa. 2000/2001, 2001/2002, 2002/2003, 2003/2004.

Teaching of Mathematical Analysis, degree course in Web Technologies and Multimedia, aa.aa. 2003/2004 e 2004/2005.

Teaching of Mathematics, degree courses in the faculty of Agricultural Sciences, aa.aa. 2004/2005, 2005/2006, 2006/2007 e 2007/2008.

Teaching of Mathematical Analysis 1, degree course in Mathematics, aa.aa. 2005/2006, 2006/2007, 2007/2008, 2008/2009.

Teaching of “Richiami di Matematica”, master degree course in “Sistemi Informativi Territoriali”, aa.aa. 2006/2007 e 2007/2008.

Teaching of Mathematical Analysis 8, degree course in Mathematics, aa.aa. 2007/2008, 2008/2009, 2009/2010.

Teaching of Mathematical Analysis 5, degree course in Mathematics, a.a. 2009/2010.

Teaching of Mathematics, degree course in Agricultural Sciences, aa.aa. 2008/2009, 2009/2010 e 2010/2011.

Teaching of Superior Analysis I, degree course in Mathematics, a.a. 2010/2011.

Teaching of Mathematical Analysis, degree course in Radiology Techniques, a.a. 2010/2011.

Teaching of Mathematics, degree course in Biotechnology, aa.aa. 2012/2013, 2013/2014 e 2015/2016.

Teaching of Differential Equations, degree course in Mathematics, aa.aa. 2010/2011, 2011/2012, 2012/2013, 2013/2014, 2014/2015 e 2015/2016.

Teaching of Mathematical Analysis II, degree course in Mathematics, aa.aa. 2016/2017, 2017/2018, 2018/2019, 2019/2020, 2020/2021, 2021/2022 and 2022/2023.

Autorizzo il trattamento dei miei dati personali ai sensi dell’art. 13 D. Lgs. 30 giugno 2003 n.196 - “Codice in materia di protezione dei dati personali” e dell’art. 13 GDPR 679/16 - “Regolamento europeo sulla protezione dei dati personali”

Data, 28/04/2023