

# Rinaldo M. Colombo

## Curriculum Vitæ



February 15, 2024

### Summary

- ★ Author of more than 150 papers in scientific journals and conference proceedings.
- ★ More than 50 co-authors from 12 different countries.
- ★ Member of the Editorial Board of
  - ★ *Journal of Hyperbolic Differential Equations* since 2004.
  - ★ *Discrete and Continuous Dynamical Systems* (series A) since 2010.
  - ★ *Topological Methods in Nonlinear Analysis* from 2015 to 2022.
- ★ Coordinator of research projects funded by public agencies / private companies.
- ★ Organizer of conferences / meetings: Minisymposium in SIAM PDE 2004; Oberwolfach 2008, 2013, 2016, 2019; Lorentz Center 2013, 2018, INdAM Workshop 2021.
- ★ Invited / Plenary speaker at conferences / meetings / advanced courses: Oberwolfach 1999, 2021, 2023, 2024; CIRM Luminy 2007, 2010, 2012; IMA Summer School 2009; HYP2010; IPAM - UCLA 2011, 2015; ETH Zürich 2016, SIAM PDE 2019.
- ★ Visitor / invited at various universities / research centers: Stanford University, Brown University, IMA Minneapolis, Shanghai Jiao Tong University, MPI Leipzig, Mittag-Leffler Institute, Abel Symposium, Penn State University.
- ★ Supervisor of postDoc research fellowships, [Ph.D. theses](#), master and university theses.
- ★ Served 2 times as member of the national ASN committee in Mathematical Analysis.

### Research Interests

Since 1992, my activity is mainly related to nonlinear hyperbolic conservation laws. My PhD thesis concerns the well posedness of the Cauchy problem for 1D systems.

After PhD, I kept working on conservation laws at different levels of abstraction and considering also the case of scalar multiD equations. Examples of results range from the introduction and analytic/numerical study of new models to the proof of well posedness of various kinds of conservation/balance laws, from the study of differential equations in metric spaces to the analysis and control/optimization of models based on conservation laws, possibly coupled with other equations. Areas of applications are crowd dynamics, vehicular traffic, granular flows, laser cutting, supply chains management and optimal control in biological/epidemiological problems.

A current research direction is the use of game theoretic tools to describe the behaviors of individuals, for instance in the modeling of vehicular traffic and crowd dynamics.

## Personal Data

- 1988 Graduated *cum laude* in Mathematics at the University of Milan, supervisor L. Galgani.
- 1990 *Magister Philosophiæ* in Functional Analysis and Applications at SISSA, Trieste, supervisor A. Cellina.
- 1991 “*Ricercatore*” in Mathematical Analysis at the University of Milan.
- 91/92 Compulsory military service.
- 1995 *Doctor Philosophiæ* in Functional Analysis and Applications at SISSA, Trieste, supervisor A. Bressan.
- 1998 Associate Professor in Mathematical Analysis at the University of Brescia.
- 2003 Qualified as full professor in Mathematical Analysis at the University of Trento.
- 2005 Enrolled as full professor in Mathematical Analysis at the University of Brescia.

## Further Resources

Home Page: <http://rinaldo.unibs.it>  
Publications: <http://rinaldo.unibs.it/Publications.html>  
MathSciNet: [315089](#) Scopus: [57191446826](#)  
Zentralblatt: [colombo.rinaldo-m](#) Web of Science: [RM Colombo](#)  
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## Contacts

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