

Bruno Toaldo

Scientific Curriculum Vitae

Current Position

November 2010 – present **Ph.D. Student in Methodological Statistics**, Department of Statistical Sciences, Sapienza - University of Rome, Italy, Supervisor: Enzo Orsingher.
Research branch: Probability and Mathematical Statistics (MAT/06).

Research

Major fields of study

- o Time-changed processes and pseudoprocesses and related PDEs of fractional and integer order.
- o Fractional and anomalous diffusions and their relationships with PDEs of fractional and integer order.
- o Diffusions on fractals.
- o Stochastic processes and random variables related to hyperbolic geometry.

Referee for

- o International Journal of Modern Theoretical Physics

Publications

Published

- o E. Orsingher & **B. Toaldo**, Shooting randomly against a line in euclidean and non-euclidean spaces, *To appear in Stochastics*. Online since 19 Feb 2013.

Preprints

- o E. Orsingher & **B. Toaldo**, Pseudoprocesses related to space-fractional higher-order heat-type equations, *Submitted*, arXiv:1305.6409
- o E. Orsingher & **B. Toaldo**, Even-order pseudoprocesses on a circle and related Poisson kernels, *Submitted*, arXiv:1212.5786
- o E. Orsingher & **B. Toaldo**, Space-time fractional equations and the related stable processes at random time, *Submitted*, arXiv:1207.3284
- o M. D'Ovidio, E. Orsingher & **B. Toaldo**, Time-changed processes governed by space-time fractional telegraph equations, *Submitted*, arXiv:1206.2511
- o M. D'Ovidio, E. Orsingher & **B. Toaldo**, *Space-fractional operator and higher-order time derivative related to subordinated Bessel processes*, Technical Report num 15, Agosto 2011, Department of Statistical Sciences, Sapienza - University of Rome, Italy.

In preparation

- o M. D'Ovidio & **B. Toaldo**, Fractional power operators and their higher-order counterparts related to subordinated euclidean and hyperbolic random distances.

Talks & Posters

Talks

- o *Time-changed processes and fractional PDEs*. XXXVII Summer School on Mathematical Physics, Ravello - September 17-29 2012.

Posters

- *Shooting randomly against a line in euclidean and non-euclidean spaces*. Biocomp 2012 - Mathematical Modeling and Computational Topics in Biosciences. June 4-8 2012, Vietri sul mare - Salerno.

Summer Schools

- XXXVII Summer School on Mathematical Physics (Ravello - September 17 - 29, 2012).

Publications in other fields

- P. Palazzo, C. Balucani, K. Barlind, G. Tsivgoulis, Y. Zhang, L. Zhao, J. DeWolfe, **B. Toaldo**, E. Stamboulis, F. Vernieri, P.M. Rossini, and A.V. Alexandrov, *Association of reversed Robin Hood syndrome with risk of stroke recurrence*, *Neurology*, November 30, 2010 75:2003-2008.

Teaching

2012/2013 Assistant for the following courses:

- Mathematics II, (MAT/05), Prof.ssa Silvia Mazzone, Department of Statistical Sciences, Sapienza - University of Rome.
- Mathematics II, (MAT/05), Prof. Dario Sacchetti, Department of Statistical Sciences, Sapienza - University of Rome.
- Probability I, (MAT/06), Prof. Enzo Orsingher, Facoltà di Ingegneria dell'Informazione, Informatica e Statistica (Corso di Laurea in Ingegneria Elettronica), Sapienza - University of Rome.
- Mathematics I, (MAT/03), Prof. Enrico Casadio Tarabusi, Department of Statistical Sciences, Sapienza - University of Rome.
- Mathematics I, (MAT/03), Prof. Roberto Pignoni, Department of Statistical Sciences, Sapienza - University of Rome.

2011/2012 Assistant for the following courses:

- Mathematics II, (MAT/05), Prof.ssa Silvia Mazzone, Department of Statistical Sciences, Sapienza - University of Rome.
- Mathematics II, (MAT/05), Prof. Dario Sacchetti, Department of Statistical Sciences, Sapienza - University of Rome.
- Mathematics I, (MAT/03), Prof. Enrico Casadio Tarabusi, Department of Statistical Sciences, Sapienza - University of Rome.
- Mathematics I, (MAT/03), Prof. Roberto Pignoni, Department of Statistical Sciences, Sapienza - University of Rome.
- Mathematics III, (MAT/05), Prof. Attilio Le Donne, Department of Statistical Sciences, Sapienza - University of Rome.
- Mathematics III, (MAT/05), Prof. Paolo Papi, Department of Statistical Sciences, Sapienza - University of Rome.

Education

October 2009–April 2010 **Research project: Extents and determinants of Panel Attrition in the EU-SILC**, *Istituto Nazionale di Statistica (ISTAT)*, Via Adolfo Ravà, 150, Rome, Italy.
Supervisor: Lucia Coppola (ISTAT).

April 2010 **Master's Degree in Statistical, Economic and Actuarial Sciences**, *Università Cattolica del Sacro Cuore*, Milan, Italy, *Grade: 109/110*.
Supervisor: Alessandro Rosina (Sez. di Demografia e statistica sociale). Title of Dissertation: Extents and determinants of attrition in the EU-SILC (in italian).

October 2007 **Bachelor's Degree in Economic and Social Sciences**, *Università Commerciale Luigi Bocconi*, Milan, Italy.
Supervisor: Renata Targetti Lenti. Title of Dissertation: Libertà, democrazia e sviluppo nel pensiero di Amartya Sen. Published online on:
<http://www.csspd.it/index.php?method=section&action=zoom&id=969>.

Languages

English **Level B2**

French **Level B1**

Italian **Fluent**

Listening, Speaking, Reading and Writing

Listening, Speaking, Reading and Writing

My native language

Computer skills

OS Linux, Windows.

Scientific R, Axiom, Matlab, SPSS, SAS, GIS.

Office \LaTeX , Office.

Programming R, SQL, html.

Languages

References

Enzo Orsingher - enzo.orsingher@uniroma1.it

Mirko D'Ovidio - mirko.dovidio@uniroma1.it