

MICHAEL LOULAKIS

Date/place of birth 1st January, 1973, Athens, Greece
Affiliation School of Applied Mathematical & Physical Sciences
National Technical University of Athens
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Current position Associate Professor
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Fields of interest Probability Theory; Stochastic processes; Interacting Particle Systems; Large Deviations

EDUCATION

2001 PhD in Mathematics, Courant Institute, New York University
1998 MSc in Mathematics, Courant Institute, New York University
1995 Diploma in Electrical Engineering, National Technical University of Athens

ACADEMIC POSITIONS

since 2017 Affiliated Faculty, Foundation for Research and Technology, Hellas (FORTH)
since 2015 Associate Professor, National Technical University of Athens
2011 – 2015 Assistant Professor, National Technical University of Athens
2005 – 2011 Assistant Professor, University of Crete
2002 – 2005 Marie Curie Post-Doctoral Fellow, University of Cambridge
2001 – 2002 Post-Doctoral Research Assistant, Forschungsinstitut für Mathematik, ETH Zürich

AWARDS & GRANTS

2018 – 2020 Member of the *Competitiveness-Entrepreneurship-Innovation* Research Project MIS 5031822, "Photonic Analysis of Biometric Photoabsorption on the retina".
2012 – 2015 Member of the *Thales* Research Project MIS377291, "Analysis Modeling and Simulation of Complex and Stochastic Systems".
2012 – 2015 Member of the *Thales* Research Project MIS 377289, "Optimal Management of Dynamical Systems of the Economy and the Environment".
2013 – 2015 Member of the *Excellence* Research Project 1082, "Analytical and probabilistic methods in Banach spaces and their operators".
2012 – 2013 Greek scientific co-ordinator of the IKYDA Project 54718970, "Stochastic Analysis in Finance and Physics".
2010 – 2013 Scientific co-ordinator of the Heraclitus II Project UoC14222, "Interacting particle models for condensation".
2005 – 2007 Marie Curie reintegration grant FP6-MOBILITY-16163, "Motion of Tracers in Random Environment and the Einstein Relation".
2002 – 2005 Marie Curie Post-Doctoral Fellowship HPMF-CT-2002-01610, "Tracer particle and coagulation in simple exclusion models".

SUPERVISION OF PHD STUDENTS

2010 – 2014 M.G. Stamatakis “Interacting Particle models for condensation”, Univ. of Crete

SELECTED TALKS

07/2018 IMS Annual Meeting on Probability and Statistics, Vilnius.
02/2018 Interplay of Analysis and Probability in Applied Mathematics, Mathematisches Forschungsinstitut Oberwolfach.
08/2016 In Honor of S.R.S. Varadhan 75th birthday, Weierstrass Institute, Berlin.
07/2014 37th Conference in Stochastic Processes and their Applications, Buenos Aires.
01/2014 Inhomogeneous Random Systems, Institut Henri Poincaré, Paris.
11/2010 Large Scale Stochastic Dynamics, Mathematisches Forschungsinstitut Oberwolfach.
08/2007 Large Scale Stochastic Dynamics, Mathematisches Forschungsinstitut Oberwolfach.

FURTHER ACTIVITIES (SELECTION)

since 2016 Associate editor for the Bulletin of the Hellenic Mathematical Society
since 2014 Reviewer for EPSRC UK
08/2014 organiser of a contributed session in 37th SPA Congress
since 2012 co-organiser of the annual Athens Probability Colloquium
since 2002 Referee for Journal of Functional Analysis, Annals of Probability, Annals of Applied Probability, Probability Theory and Related Fields et al.

SELECTED PUBLICATIONS

- [1] G.T. Kossioris, M. Loulakis, P.E. Souganidis. The Deterministic and Stochastic Shallow Lake Problem. To appear, SPECIAL VOLUME IN HONOR OF S.R.S. VARADHAN’S 75TH BIRTHDAY (2019).
- [2] C. Landim, M. Loulakis, M. Mourragui. Metastable Markov Chains: From the convergence of the trace to the convergence of finite-dimensional distributions. *ELECTRON J PROBAB* 23, no. 95, 1–34 (2018).
- [3] M. Loulakis, G. Blatsios, C.S. Vrettou, I.K. Kominis. Quantum Biometrics with Retinal Photon Counting. *PHYS REV APPLIED* 8, 044012 (2017).
- [4] D. Cheliotis, I. Kontoyiannis, M. Loulakis, S. Toumpis. Exact Speed and Transmission Cost in a Simple One-Dimensional Wireless Delay-Tolerant Network. *IEEE ISIT*, 476–480 (2017).
- [5] I. Armendáriz, S. Grosskinsky, M. Loulakis. Metastability in a condensing zero-range process in the thermodynamic limit. *PROBAB TH REL FIELDS* 169, no. 1-2, 105 – 175 (2017).
- [6] I. Armendáriz, S. Grosskinsky, M. Loulakis. Zero-Range condensation at criticality. *STOCH PROC APPL* 123, no. 9, 3466–3496 (2013).
- [7] I. Armendáriz, M. Loulakis. Conditional distribution of heavy tailed random variables on large deviations of their sum. *STOCH PROC APPL* 121, no. 5, 1138 –1147 (2011).
- [8] I. Armendáriz, M. Loulakis. Thermodynamic limit for the invariant measures in supercritical zero-range processes. *PROBAB TH REL FIELDS* 145, no. 1-2, 175 –188 (2009).
- [9] M. Loulakis. Mobility and Einstein Relation for a tagged particle in asymmetric mean-zero random walk with simple exclusion *ANN. INST. H. POINCARÉ, PROBAB & STATIST*, 41, no. 2, 237–254 (2005).

- [10] M. Loulakis. Einstein Relation for a Tagged Particle in Simple Exclusion Processes. *COMM MATH PHYS* 229, no. 2, 347 – 367 (2002).