Onofrio Mazzarisi

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Appointments

Dec 2020 /

Postdoctoral researcher

Dec 2022

Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany

Topics: Statistical Mechanics, Stochastic Processes, Theoretical Ecology, Evolutionary Dynamics

Education

Jan 2021 | **Ph.D, Physics**, University of Salerno, Italy

Advisor: Federico Corberi

Dissertation title: Out of equilibrium problems in classical spin models of statistical me-

chanics

Jul 2017 M.S., Theoretical Physics, University of Bologna, Italy

110/110 cum laude

Oct 2014 **B.S., Physics**, University of Bologna, Italy

110/110

Publication list

2022	Onofrio Mazzarisi and Matteo Smerlak. The role of density-dependent predation and self-
	regulation behind the predator-prey scaling law. <i>In preparation</i> , 2022

- Lorenzo Fant, **Onofrio Mazzarisi**, Emanuele Panizon, and Jacopo Grilli. Stable cooperation emerges in stochastic multiplicative growth. *arXiv preprint arXiv:2202.02787*, 2022
- Onofrio Mazzarisi, Amanda de Azevedo-Lopes, Jeferson J. Arenzon, and Federico Corberi. Maximal diversity and zipf's law. *Phys. Rev. Lett.*, 127:128301, Sep 2021
- Federico Corberi, Leticia F Cugliandolo, Marco Esposito, **Onofrio Mazzarisi**, and Marco Picco. How many phases nucleate in the bidimensional potts model? *arXiv preprint arXiv:2102.01003*, 2021
- 2020 **Onofrio Mazzarisi**, Federico Corberi, Leticia F Cugliandolo, and Marco Picco. Metastability in the potts model: exact results in the large q limit. *Journal of Statistical Mechanics: Theory and Experiment*, 2020(6):063214, 2020
- 2020 Federico Corberi, **Onofrio Mazzarisi**, and Andrea Gambassi. Dynamics of fluctuations in the gaussian model with dissipative langevin dynamics. In *Journal of Physics: Conference Series*, volume 1548, page 012027. IOP Publishing, 2020
- 2019 Federico Corberi, **Onofrio Mazzarisi**, and Andrea Gambassi. Dynamics of fluctuations in the gaussian model with conserved dynamics. *Journal of Statistical Mechanics: Theory and Experiment*, 2019(10):104001, 2019
- Armando Bazzani, **Onofrio Mazzarisi**, Massimo Giovannozzi, and Ewen Maclean. Diffusion in stochastically perturbed hamiltonian systems with applications to the recent lhc dynamic aperture experiments. In *Nonlinear Dynamics and Collective Effects in Particle Beam Physics: Proceedings of the International Committee on Future Accelerators Arcidosso Italy 2017*, pages 70–85. World Scientific, 2019

Conference presentations

2021	Paris Biological Physics Community Day, Paris, France
2021	Young Seminars SIFS, Online
2019	10 th Young Researcher Meeting, Rome, Italy

Teaching experiences

2018/	Teaching assistant, University of Salerno
2019	Physics 1

Schools and visiting experiences

Sept/Dec 2019	Visit: Sorbonne Université, Laboratoire de Physique Théorique et Hautes Energies, Paris, France Host: Leticia Cugliandolo
2019	School: Glasses, Jamming, and Slow Dynamics, Beg Rohu, France
2018	School: Entropy, Information and Order in Soft Matter, ICTS, Bangalore, India
2018	School: Spring College on the Physics of Complex Systems, ICTP, Trieste, Italy
Jan/Dec 2018	Visit: SISSA - International School for Advanced Studies, Trieste, Italy Host: Andrea Gambassi

Computer skills and languages

Computer	Julia, C, C++, fortran, Python, sh, LATEX
Languages	Italian (native), English (fluent), French (good), German (good), Spanish (basic)

Journal referee

Journal of Statistical Mechanics: Theory and Experiments, Physical Review Letters

References

Pr Leticia Cugliandolo

Sorbonne Université, Paris, France leticia@lpthe.jussieu.fr

Pr Federico Corberi

University of Salerno, Salerno, Italy fcorberi@unisa.it

Dr Matteo Smerlak

Max Planck Institute for Mathematics in the Sciences, Germany matteo.smerlak@mis.mpg.de