

Matteo D'Achille

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<https://matteodachille.github.io>

Current position

2017 - PhD CANDIDATE at the Université Paris-Saclay, under the supervision of Andrea Sportiello, Olivier Rivoire and William Jalby

Education

2016 MASTER OF SCIENCE (“Laurea Magistrale”) in Theoretical Physics, **110/110 “summa cum laude”**, The University of Milan.
Thesis title: “*On two linear assignment problems: random assignment and Euclidean bipartite matching*”, under the supervision of [Sergio Caracciolo](#) and [Gabriele Sicuro](#)

2012 LAUREA TRIENNALE (BSc) in Physics, **110/110**, The University of Milan.
Thesis title: “*La Teoria di Schwarz-Christoffel e il Biliardo Quantistico Poligonale*”, under the supervision of [Luca Guido Molinari](#)

Recent activities

2018 PhD internship (18/2-4/3) at the BANACH CENTER of the Institute of Mathematics of the Polish Academy of Sciences (IM PAN), Warsaw, Poland ([website](#))

Publications

JOURNAL ARTICLES

- 2019 “The Dyck bound in the concave 1-dimensional random assignment model”, with S. Caracciolo, V. Erba and A. Sportiello
to appear in the “Disordered serendipity: a glassy path to discovery”, special issue of the Journal of Physics A: Mathematical and Theoretical honoring Giorgio Parisi’s leading leading in the field of statistical physics of disordered and complex systems in occasion of his 70th birthday. Preprint: [arXiv:1904.10867](https://arxiv.org/abs/1904.10867) [cond-mat.dis-nn]
- 2018 “Anomalous scaling of the optimal cost in the one-dimensional random assignment problem”, with S. Caracciolo and G. Sicuro, *Journal of Statistical Physics* **174** (4), 846–864. doi: [10.1007/s10955-018-2212-9](https://doi.org/10.1007/s10955-018-2212-9)
- 2017 “Random Euclidean matching problems in one dimension”, with S. Caracciolo and G. Sicuro, *Physical Review E* **96** (4), 42102. doi: [10.1103/PhysRevE.96.042102](https://doi.org/10.1103/PhysRevE.96.042102)
- “Finite-size corrections in the random assignment problem”, with S. Caracciolo, E.M. Malatesta and G. Sicuro, *Physical Review E* **95** (5), 52129. doi: [10.1103/PhysRevE.95.052129](https://doi.org/10.1103/PhysRevE.95.052129)

Teaching activities

- 2018-2019 Remediation “OUI-si”, Licence MPI (35h eq. TD), Département de Mathématiques d’Orsay, Université de Paris-Sud
- 2018-2019 Calculus Math 151, DLPC (30h eq. TD), Département de Mathématiques d’Orsay, Université de Paris-Sud

Attended schools, conferences, and workshops

- 2018 “Information transmission in biological systems” Conference, Simons Semester on Mathematical Biology, *The Mathematical Research and Conference Center in Będlewo*, Poland. [Website](#)
- 2017 “Computational approaches to investigating allostery” Workshop, *CECAM-HQ Ecole Polytechnique Federale de Lausanne*, Lausanne, Switzerland. [Website](#)
- “26th VI-HPS Tuning Workshop”, *Laboratoire Exascale Computing Research (ECR), Campus Ter@tec*, Bruyères-le-Châtel, France. [Website](#)
- 2016 “Optimal Transport and Applications” Conference, *Scuola Normale Superiore*, Pisa, Italy. [Website](#)
- 2014 “Mathematical Physics, Analysis and Stochastics” Summer School, *Ruprecht Karls Universität*, Heidelberg, Germany. [Website](#)

Scientific societies

- 2019- *Società Italiana di Fisica Statistica*, voting member
- 2017- *European Physical Society*, individual member

2013- *Italian Physical Society*, voting member

Service to the profession

2017- *American Physical Society*, referee for Physical Review journals and Reviews of Modern Physics.