

AUGUST 23, 2024

## ALBERTO DINELLI

*Born in* Lucca (Italia), 07/10/1997  
*email* [alberto.dinelli@u-paris.fr](mailto:alberto.dinelli@u-paris.fr)  
*address* Laboratoire Matière et Systèmes Complexes  
 UMR 7057 · Université de Paris  
 10 rue Alice Domon et Léonie Duquet  
 75205 Paris CEDEX 13 (France)  
*website* [adinelli.github.io](https://adinelli.github.io)

## EDUCATION

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|-------------------|--|
| 2024-09 – Present | <b>Postdoc</b><br>Biochemistry department · <i>University of Geneva</i><br><b>Advisor:</b> Karsten Kruse.  |
| 2021-10 – 2024-08 | <b>Ph.D. - Physique en Île de France</b><br>Laboratoire Matière et Systèmes Complexes, Université Paris Cité · <i>Paris</i><br><b>Thesis:</b> Scalar Active Matter across scales · <b>Supervisor:</b> Julien Tailleur.   |
| 2023-10 – 2023-11 | · Visiting period at MIT, group of Prof. J. Tailleur · <i>Cambridge, US</i><br>· Visiting period at YITP, group of Prof. H. Hayakawa · <i>Kyoto, JP</i><br>· Visiting period at MIT, group of Prof. J. Tailleur · <i>Cambridge, US</i>   |
| 2023-07           |  |
| 2022-10           |  |
| 2019-09 – 2021-07 | <b>Master in Physics of Complex Systems - International track</b><br>Politecnico di Torino · <i>Torino</i><br>Université Paris-Saclay · <i>Paris</i><br>SISSA, ICTP · <i>Trieste</i><br><b>Italian degree mark:</b> 110/110 cum laude<br><b>French M2 mark:</b> 18/20<br><b>Thesis:</b> Self-organization of active mixtures · <b>Supervisor:</b> Julien Tailleur. |
| 2016-09 – 2019-07 | <b>Bachelor degree in Physics</b><br>Università di Pisa · <i>Pisa</i><br><b>Degree mark:</b> 110/110 cum laude<br><b>Thesis:</b> Rayleigh Taylor instability on a thin layer of fluid accelerated by the radiation pressure. · <b>Supervisor:</b> Francesco Pegoraro.  |

## TEACHING

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|-------------|---|
| 2021 - 2024 | · Teaching assistant, <i>Physics of Materials</i> (Bachelor, 1st year) · IUT Pajol ( <i>Paris</i> )<br>· Teaching assistant, <i>Photonics</i> (Bachelor, 2nd year) · IUT Pajol ( <i>Paris</i> ) |
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## PUBLICATIONS

1. A. Dinelli, J. O'Byrne and J. Tailleur, "Fluctuating hydrodynamics of active particles interacting via chemotaxis and quorum sensing: static and dynamics". J. Phys. A (2024).
  2. A. Dinelli, J. O'Byrne, A. Curatolo, Y. Zhao, P. Sollich, J. Tailleur, "Non-reciprocity across scales in active mixtures". Nature Communications 14, 7035 (2023).
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## TALKS

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|---------|--|
| 2024-04 | · Seminar in K. Kruse's group, (Université de Genève, Geneva)  |
| 2024-02 | · Seminar at <i>Spring College of Physics of Complex Systems 2024</i> (ICTP, Trieste)                                |
| 2024-01 | · Flash talk at <i>Journées de Physique Statistique 2024</i> (ENS, Paris)  |
| 2024-01 | · Seminar in M. Shelley's group, (CCB, Flatiron Institute, New York)   |
| 2023-10 | · Seminar in D. Nelson's group, (Harvard University, Cambridge)  |
| 2023-10 | · Seminar in P. Mehta and K. Korolov's groups, (Boston University, Boston)   |
| 2023-10 | · Seminar in M. Hagan's group, (Brandeis University, Waltham)  |
| 2023-08 | · Contributed talk at <i>STATPHYS28</i> , (University of Tokyo, Tokyo)   |
| 2023-08 | · Contributed talk at <i>Frontiers in nonequilibrium physics: Active matter, topology and beyond</i> , (YITP, Kyoto) |
| 2023-07 | · Seminar at YITP, Advanced Statistical Dynamics Group, (YITP, Kyoto)  |
| 2023-06 | · Contributed talk at <i>EDPIF Scientific Day</i> , (Sorbonne University, Paris)                                     |
| 2023-03 | · Seminar at Institut Curie, Theory Group (Institut Curie, Paris)  |
| 2023-01 | · Flash talk at <i>Journées de Physique Statistique 2023</i> (ENS, Paris)  |
| 2022-11 | · Contributed talk at <i>Physics of Microbial Motility Workshop</i> (ESPCI, Paris)                                   |
| 2022-10 | · Talk at <i>Greater Boston Area Statistical Mechanics Meeting</i> (UMass-Amherst, Amherst)                          |
| 2022-10 | · Seminar at MIT Physics of Living Systems (MIT, Cambridge)  |
| 2022-06 | · Contributed talk at the CECAM Workshop: <i>New Frontiers in Liquid Matter</i> (Sorbonne Jussieu, Paris)            |
| 2022-01 | · Flash talk at <i>Journées de Physique Statistique 2022</i> (ENS, Paris)  |
| 2021-11 | · Flash talk at <i>Multiscale integration in Biological Systems</i> (Institut Curie, Paris)                          |
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## POSTER PRESENTATIONS

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| 2023-08 | · <i>Perspectives on Non-Equilibrium Statistical Mechanics</i> (YITP, Tokyo)                      |
| 2023-06 | · <i>Active matter at surfaces and in complex environments</i> (MPIPKS, Dresden)                  |
| 2023-05 | · <i>Workshop on Signatures of Nonequilibrium fluctuations in life</i> (ICTP, Trieste)            |
| 2022-12 | · <i>Population dynamics: from rare events to evolution</i> (Université Grenoble Alpes, Grenoble) |
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## OTHER INFORMATION

### Awards

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| 2023        | · International Mobility Fellowship               |
| 2021 - 2024 | · IdEX International PhD Fellowship               |
| 2020 - 2021 | · Paris-Saclay International Master's Scholarship |