Enrico Lattuada

Curriculum Vitae

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Date of birth: April 28th, 1990
Place of birth: Milano, Italy
Citizenship: Italian
My profile on scientific databases: Scopus, ResearcherID, Google Scholar
H-index (Scopus, 01/02/2022): 4
Total citations (Scopus, 01/02/2022): 40

Current address
Faculty of Physics
University of Vienna
Boltzmanngasse, 5
1090, Vienna, Austria

Education and career

Mar 2022 – present **Lise Meitner post-doctoral research fellow**, *University of Vienna*, with Prof. Roberto Cerbino.

Dec 2018 – Feb 2022 **Post-doctoral research fellow**, *La Sapienza Universitá di Roma*, Roma (Italy), with Prof. Francesco Sciortino.

Nov 2015 – Feb 2019 **Dottorato di Ricerca (Ph.D.) in Industrial Chemistry and Chemical Engineering**, *Politecnico di Milano*, under the supervision of Prof. Roberto Piazza), *cum laude*.

Jun 2015 – Oct 2015 **Junior research fellow intern at Soft Matter Lab**, *Politecnico di Milano*, under the supervision of Prof. Roberto Piazza.

Oct 2012 – Apr 2015 **Laurea specialistica (Master of Science) in Nuclear Engineering**, *Politecnico di Milano*, *110/110 cum laude*.

Sep 2009 – Sep 2012 **Laurea triennale (Bachelor of Science) in Energy Engineering**, *Politecnico di Milano*, *103/110*.

Schools

10-14/07/2017 **1st Summer School on Complex Fluid Flows in Microfluidics**, *Universidade do Porto*, Porto – Portugal.

20-28/06/2022 **15th Bombannes Summer School on scattering applied to soft condensed matter**, Carcans-Maubuisson – France.

11-22/07/2022 **"Machine Learning for Materials Hard and Soft" ESI-DCAFM-TACO-VDSP Summer School**, *Erwin Schrödinger Institute*, Vienna – Austria.

Fellowships, grants & awards

2022 **FWF (Austria Science Fund) Lise Meitner Post-doctoral Fellowship**, *(177,980.00 €)*.

2018 **Best poster award**, Italian Soft Days 3rd edition, Padova (Italy).

2017 **Second best communication award**, 103rd National Congress of the Italian Physical Society, Trento (Italy).

2015 **MIUR (Italian Ministry of Education, University and Research) doctoral scholarship**.

Research interests

- Sedimentation
- Fluid dynamics
- Self-assembly and phase separation in complex colloidal suspensions
- Structure and dynamics of colloidal gels
- Optical techniques applied to soft matter

Publications

2022 **Treatment of kidney clear cell carcinoma, lung adenocarcinoma and glioblastoma cell lines with hydrogels made of DNA nanostars**, M Leo, E Lattuada, D Caprara, L Salvatori, A Vecchione, F Sciortino, P Filetici, A Stoppacciaro, *Biomater. Sci.* (2022).

2021 **Spatially uniform dynamics in equilibrium colloidal gels**, E Lattuada, D Caprara, R Piazza, F Sciortino, *Sci. Adv.* **7** (2021), eabk2360.

2020 **Hyperbranched DNA clusters**, E Lattuada, D Caprara, V Lamberti, F Sciortino, *Nanoscale* **12** (2020), 23003.

DNA-GEL, novel nanomaterial for biomedical applications and delivery of bioactive molecules, E Lattuada, M Leo, D Caprara, L Salvatori, A Stoppacciaro, F Sciortino, P Filetici, *Front. Pharmacol.* **11** (2020), 1345.

2019 **Thermophoresis in self-associating systems: Probing poloxamer micellization by opto-thermal excitation**, E Lattuada, S Buzzaccaro, R Piazza, *Soft Matter* **15** (2019), 2140.

Compressive yield stress of depletion gels with variable interaction strength, E Lattuada, *Il Nuovo Cimento C* **42** (2019), 226.

2018 **Compressive yield stress of depletion gels from stationary centrifugation profiles**, E Lattuada, S Buzzaccaro, R Piazza, *J. Phys.: Condens. Matter* **30** (2018), 044005.

2017 **Use of RAFT macro-surfmers for the synthesis of transparent aqueous colloids with tunable interactions**, U Capasso Palmiero, A Agostini, E Lattuada, S Gatti, J Singh, CT Canova, S Buzzaccaro, D Moscatelli, *Soft Matter* **13** (2017), 6439.

2016 **Colloidal Swarms Can Settle Faster than Isolated Particles: Enhanced Sedimentation near Phase Separation**, E Lattuada, S Buzzaccaro, R Piazza, *Phys. Rev. Lett.* **116** (2016), 038301.

Conference talks and posters

2022 **Spatially uniform dynamics in equilibrium colloidal gels**, *presentation*, E Lattuada, D Caprara, R Piazza, F Sciortino, Polymer networks group international workshop.
Roma, Italy

2021 **Homogeneous dynamics in DNA equilibrium gels**, *presentation*, E Lattuada, D Caprara, R Piazza, F Sciortino, 35th ECIS Congress.
Athens, Greece

2020 **Hyperbranched DNA clusters**, *presentation*, E Lattuada, D Caprara, V Lamberti, F Sciortino, Italian Soft Days, 4th edition.
Bari, Italy

2018 **Compressive yield stress of depletion gels from stationary centrifugation profiles**, *presentation*, E Lattuada, S Buzzaccaro, R Piazza, Italian Soft Days, 3rd edition.
Padova, Italy

Glancing at sedimenting invisible particles: a Ghost Particle Velocimetry setup, *poster*, E Lattuada, A Orlandini, S Buzzaccaro, R Piazza, Italian Soft Days, 3rd edition.
Padova, Italy

2017 **Non-equilibrium equation of state of a nanoparticle gel**, *communication*, E Lattuada, S Buzzaccaro, R Piazza, 103o Congresso Nazionale della Società Italiana di Fisica.
Trento, Italy

Can colloidal swarms settle faster than isolated particles?, *presentation*, E Lattuada, S Buzzaccaro, R Piazza, 10th Liquid Matter Conference.
Ljubljana, Slovenia

2016 **Can colloidal swarms settle faster than isolated particles?**, *presentation*, E Lattuada, S Buzzaccaro, R Piazza, Italian Soft Days, 2nd edition.
Milano, Italy

Can colloidal swarms settle faster than isolated particles?, *presentation*, E Lattuada, S Buzzaccaro, R Piazza, 3rd Workshop of the Complex Systems Group.
Milano, Italy

Students supervision and co-supervision

2021 **Tommaso Pietrangeli, Master candidate in Physics**, *Department of Physics, Sapienza Università di Roma*, with Prof. Francesco Sciortino.

2020 **Vincenzo Lamberti, Master candidate in Physics**, *Department of Physics, Sapienza Università di Roma*, with Prof. Francesco Sciortino.

2019 **Andrea Alessandrini, Master candidate in Nuclear Engineering**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Prof. Roberto Piazza.

2018 **Massimo Stefanoni, Master candidate in Nuclear Engineering**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Dr. Stefano Buzzaccaro.

2018 **Francesco Marafelli, Master candidate in Engineering Physics**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Dr. Stefano Buzzaccaro.

2018 **Andrea Orlandini, Master candidate in Chemical Engineering**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Prof. Roberto Piazza.

2018 **Andrea Francesco Mollame, Master candidate in Chemical Engineering**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Dr. Stefano Buzzaccaro.

2018 **Tommaso Botta, Batchelor of Science candidate in Engineering Physics**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Dr. Stefano Buzzaccaro.

2017 **Zeno Filiberti, Master candidate in Nuclear Engineering**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Prof. Roberto Piazza.

2017 **Alessandro Carbonaro, Master candidate in Engineering Physics**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Prof. Roberto Piazza.

2016 **Christopher Thomas Canova, "Roberto Rocca" Fellow visiting student from MIT (Dept. of Chemical Engineering)**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Prof. Roberto Piazza.

2016 **Roberto Pioli, Master candidate in Chemical Engineering**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Dr. Stefano Buzzaccaro.

2016 **Valentino Lepro, Master candidate in Biomedical Engineering**, *Department of Chemistry, Materials Science, and Chemical Engineering, Politecnico di Milano*, with Prof. Roberto Piazza.

Languages

Italian (native) and English (proficient).

Other activities

Reviewer for *Journal of Physics: Condensed Matter*, *Soft Matter*, and *Papers in Physics*.