

Lorenzo Rovigatti

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Date of birth: December 17, 1985

Place of birth: Rome, Italy

Citizenship: Italian

My profile on scientific databases: [Scopus](#), [ResearcherID](#), [Google Scholar](#)

Number of published items: 56 refereed papers + 2 book chapters

H-index (Scopus, 09/09/2021): 24

Total citations (Scopus, 09/09/2021): 1582

Current address

Dipartimento di Fisica

Sapienza Università di Roma

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Roma, Italy

Education and Career

- Sep 2021 – today **Associate Professor**, *Sapienza Università di Roma*.
- Sep 2018 – Aug 2021 **Rita Levi Montalcini fellow, tenure-track researcher (RTDB)**, *Sapienza Università di Roma*.
- May 2017 – Aug 2018 **Non-tenure researcher (RTDA)**, *CNR-ISC*, with Dr. E. Zaccarelli.
- Apr 2016 – Apr 2017 **Marie Skłodowska-Curie Individual Fellow**, *University of Oxford*, with Prof. A. Louis.
- Mar 2016 **Post-doctoral fellow**, *University of Vienna*, with Prof. C. Likos.
- Mar 2014 – Feb 2016 **Lise Meitner fellow**, *University of Vienna*, with Prof. C. Likos.
- Dec 2012 – Feb 2014 **Post-doctoral fellow**, *Sapienza Università di Roma*, with Prof. F. Sciortino.
- Nov 2009 – Dic 2012 **Dottorato di Ricerca (Ph.D.) in Materials Science**, *Sapienza Università di Roma*, under the supervision of Prof. F. Sciortino.
- Apr – May 2012 **HPC-Europa visitor**, *University of Edinburgh*, with Dr. P. J. Camp.
- Jun 2011 **Visiting scientist**, *University of Oxford*, with Prof. J. P. K. Doye.
- Oct 2007 – Oct 2009 **Laurea Specialistica (Master Degree) in Physics**, *Sapienza Università di Roma*, 110/110 cum laude.
- Mar – May 2009 **Visiting scientist**, *University of Montpellier 2*, with Prof. W. Kob.
- Oct 2004 – Oct 2007 **Laurea Triennale (Bachelor Degree) in Physics**, *Sapienza Università di Roma*, 110/110 cum laude.

Fellowships, Grants & Awards

- 2020 **Italian Scientific Qualification (Abilitazione Scientifica Nazionale)**, as Full Professor in Theoretical Condensed Matter Physics.
- 2019 **“Alfredo di Braccio” Prize**, awarded by Accademia dei Lincei.
- 2018 **Rita Levi Montalcini Fellowship**, (211,173.66 €).
- 2017 **Italian Scientific Qualification (Abilitazione Scientifica Nazionale)**, as Associate Professor in Theoretical Condensed Matter Physics.
- 2016 **“Marie Skłodowska-Curie” Individual Fellowship**, (183,454.80 €).

- 2016 **“Young Investigator Training Program” Award**, *ECIS 2016*.
- 2016 **ESG-Nano-Prize 2016**, *Erwin Schrödinger Symposium*.
- 2014 **“Lise Meitner” Fellowship**, (144,420.00 €).
- 2012 **HPC-Europa 2 Fellowship**.

Student Supervisions and Co-supervisions

- 2022 **Francesco Tosti Guerra, Ph.D. Candidate**, *Dipartimento di Fisica, Sapienza Università di Roma*.
- Elisa Ballin, Master candidate**, *Dipartimento di Fisica, Sapienza Università di Roma*.
- Samuel Santhosh Gomez, Master candidate**, *Dipartimento di Fisica, Sapienza Università di Roma*.
- 2019 **Marco Spinaci, Master candidate**, *Dipartimento di Fisica, Sapienza Università di Roma*.
- 2017 **Mariarita Paciolla, Master candidate**, *Dipartimento di Fisica, Sapienza Università di Roma*, with Dr. E. Zaccarelli and Dr. N. Gnan.
- 2016 – 2018 **Ferdinando Randisi, Ph.D. student**, *Rudolph Peierls Centre for Theoretical Physics, Oxford University*, with Prof. A. Louis.
- 2016 **Michele Fava, Summer intern**, *Rudolph Peierls Centre for Theoretical Physics, Oxford University*, with Prof. A. Louis.
- 2015 **Maud Formanek, Master candidate**, *Faculty of Physics, University of Vienna*, with Prof. C. N. Likos.
- 2014 **Manfredo di Porcia, Master candidate**, *Dipartimento di Fisica, Sapienza Università di Roma*, with Prof. F. Sciortino.
- 2012 – 2016 **Sofia Biagi, Ph.D. student**, *Dipartimento di Fisica, Sapienza Università di Roma*, with Prof. F. Sciortino.
- 2012 **Simone Dussi, Master candidate**, *Dipartimento di Fisica, Sapienza Università di Roma*, with Prof. F. Sciortino.

Teaching activity

- 2022 - today **Titolare del corso “Fisica 2” per Chimici (9 CFU)**, *Sapienza Università di Roma*.
- 2018 - 2021 **Titolare del corso “Fisica 2” per Chimici Industriali (9 CFU)**, *Sapienza Università di Roma*.
- 2019 - today **Co-docente del corso “Laboratorio di Calcolo” per Fisici (3 CFU)**, *Sapienza Università di Roma*.

Research interests

- Structure, dynamics and elastic properties of polymer-based materials.
- Hierarchical self-assembly in polymer- and DNA-based materials.
- Self-assembly in colloidal systems.
- Phase behaviour and dynamics of patchy particles and dipolar fluids.

Talks (invited talks are marked with a *)

- 2022 ***Designer protein assemblies with tunable phase diagrams in living cells**, *Invited talk for the "nanoseminar" series*, Utrecht University - The Netherlands (online webinar).
- 2021 ***Managing multiple simulations, checking for the correctness of the results**, *Invited lecture at the HPC School 2021*, Trento University - Italy (online webinar).
***Designer protein assemblies with tunable phase diagrams in living cells**, *Invited talk for the Physics school Monday seminars series*, University of Edinburgh - UK (online webinar).
***Phase diagrams of patchy particles and their applications to complex colloids, DNA, biomolecules**, *Invited lecture at the ITN SuperCol workshop 2021*, Online webinar.
- 2020 ***Designer protein assemblies with tunable phase diagrams in living cells**, *Workshop on Molecular Dynamics and its Applications to Biological Systems (invited talk)*, ICTP/Sissa - Italy (online webinar).
The effect of chain polydispersity and chain preparation state on the elasticity of disordered polymer networks, *Italian Soft Days*, Bari University - Italy (online webinar).
- 2019 ***A perspective on oxDNA**, *OxDNA users and developers workshop (invited talk)*, Oxford - UK.
***Elastic Properties and Effective Interactions of In Silico Realistic Polymer Networks**, *Invited talk at University of Vienna*, Vienna - Austria.
***Elastic Properties and Effective Interactions of In Silico Realistic Polymer Networks**, *Invited talk at the Wageningen University & Research*, Wageningen - The Netherlands.
Elastic Properties and Effective Interactions of In Silico Realistic Microgels, *2019 MRS Spring Meeting*, Phoenix – USA.
- 2018 **Elastic properties and effective interactions of in silico realistic microgels**, *9th International Conference on Multiscale Materials Modeling*, Osaka – Japan.
***The importance of softness and deformability, from DNA origami to microgels**, *Computational biophysics on your desktop: is that possible? (invited talk)*, Trento – Italy.
Elastic properties and effective interactions of in silico realistic microgels, *Multiscale Materials Modeling*, Osaka – Japan.
Computer-generated realistic microgels, *Soft Matter Forefronts*, Atlanta – USA.
***In silico modelling of microgels**, *Invited talk at the CMF*, San Sebastian – Spain.
- 2017 **Computer-generated realistic microgels**, *EMLG/JMLG Meeting*, Vienna – Austria.
***Beyond patchy colloids: patchy models at the atomic and molecular scale**, *"Self-assembly: theory and simulations" workshop at SISSA (invited talk)*, Trieste – Italy.
***Hierarchical self-assembly of DNA nanostars: from theory to experiment**, *"Fluids and Materials seminars" at the Department of Applied Mathematics (invited talk)*, Bristol – United Kingdom.

- *Hierarchical self-assembly made easy: DNA nanostars as a new class of model systems for complex fluids**, *Soft Matter, Biomaterials and Interfaces seminar series (invited talk)*, Oxford – United Kingdom.
- *Hierarchical self-assembly made easy: DNA nanostars as a new class of model systems for complex fluids**, *Invited talk at the MPIPKS*, Dresden – Germany.
- 2016 **Bottom-Up Colloidal Crystal Assembly with a Twist**, *ECIS 2016*, Rome – Italy.
- Soft self-assembled nanoparticles with temperature-dependent properties**, *Italian Soft Days*, Milan – Italy.
- 2015 **Soft self-assembled nanoparticles with temperature-dependent properties**, *FisMat 2015*, Palermo – Italy.
- Soft self-assembled nanoparticles with temperature-dependent properties**, *101° Congresso SIF*, Rome – Italy.
- *Tetravalent DNA Nanostars as Valence-limited Building Blocks**, *Invited talk at the IIT*, Genova – Italy.
- 2014 **Tetravalent DNA Constructs as Valence-limited Soft Building Blocks**, *Mini Workshop in Molecular and Statistical Biophysics at SISSA*, Trieste – Italy.
- *Dipolar hard spheres at low temperature and density: structure, thermodynamics and magnetic properties**, *Invited talk*, Montpellier – France.
- Gels of DNA nanostars never crystallise**, *Italian Soft Days*, Rome – Italy.
- Investigating the Phase Behaviour of Valence-limited DNA Constructs on GPUs**, *Perspective of GPU Computing in Physics and Astrophysics*, Rome – Italy.
- *Closing the loop: a single-component system with two critical points**, *Central European Statistical Mechanics Mini-Meeting (invited talk)*, Budapest – Hungary.
- 2013 ***Tetravalent DNA Constructs as Valence-limited, Patchy-like Building Blocks**, *DNA-based self-assembly: theory, simulations and experiments, CECAM workshop (invited talk)*, Vienna – Austria.
- Branching in the low-temperature dipolar hard sphere fluid**, *International Soft Matter Conference*, Roma – Italy.
- 2012 ***A coarse-grained DNA model: sequence dependence and some applications**, *DNA in a material world (invited talk)*, Roma – Italy.
- 2011 **The phase diagram of dipolar hard spheres: a new look**, *SoftComp Annual Meeting*, Heraklion – Crete.

Papers

- 2022 **SAT-assembly: A new approach for designing self-assembling systems**, by J. Russo, F. Romano, L. Kroc, F. Sciortino L. Rovigatti, P. Šulc, *J. Phys. Condens. Matter*, (2021).
- 2021 **Two-step deswelling in the Volume Phase Transition of thermoresponsive microgels**, by G. Del Monte, D. Truzzolillo, F. Camerin, A. Ninarello, E. Chauveau, L. Tavagnacco, N. Gnan, L. Rovigatti, S. Sennato, E. Zaccarelli, *Proc. Natl. Acad. Sci.*, **118**, (2021) p. e2109560118.

Sharing the load: stress redistribution governs fracture of polymer double networks, by J. Tauber, L. Rovigatti, S. Dussi, J. Van Der Gucht, *Macromolecules*, **54**, (2021) p. 8563.

Hydrodynamic instability and flow reduction in polymer brush coated channels, by S. Biagi, L. Rovigatti, M. Abbasi, Lionel Bureau, F. Sciortino and C. Misbah, *Soft Matter*, **17**, (2021) p. 9235.

Gel Formation in Reversibly Cross-Linking Polymers, by M. Formanek, L. Rovigatti, E. Zaccarelli, F. Sciortino and A. J. Moreno, *Macromolecules*, **54**, (2021) p. 6613.

OxDNA.org: A public webserver for coarse-grained simulations of DNA and RNA nanostructures, by E. Poppleton, R. Romero, A. Mallaya, L. Rovigatti and P. Šulc, *Nucleic Acid Research*, **49**, (2021) p. W491.

A Primer on the oxDNA Model of DNA: When to Use it, How to Simulate it and How to Interpret the Results, by A. Sengar, T. E. Ouldridge, O. Henrich, L. Rovigatti and P. Šulc, *Frontiers in Molecular Biosciences*, **8**, (2021) p. 693710.

Effect of Chain Polydispersity on the Elasticity of Disordered Polymer Networks, by V. Sorichetti, A. Ninarello, J. M. Ruiz-Franco, V. Hugovieux, W. Kob, E. Zaccarelli and L. Rovigatti, *Macromolecules*, **54**, (2021) p. 3769.

Effect of Internal Architecture on the Assembly of Soft Particles at Fluid Interfaces, by J. Vialetto, F. Camerin, F. Grillo, S. N. Ramakrishna, L. Rovigatti, E. Zaccarelli and L. Isa, *ACS Nano*, **15**, (2021) p. 13105.

2020 **Designer protein assemblies with tunable phase diagrams in living cells**, by M. Heidenreich, J. Georgeson, E. Locatelli, L. Rovigatti, S. K. Nandi, A. Steinberg, Y. Nadav, E. Shimoni, S. A. Safran, J. P. K. Doye, E. D. Levy, *Nature Chem. Biol.*, **16**, (2020) p. 939.

Microgels at interfaces behave as 2D elastic particles featuring reentrant dynamics, by F. Camerin, N. Gnan, J. Ruiz-Franco, A. Ninarello, L. Rovigatti, E. Zaccarelli, *Phys. Rev. X*, **10**, (2020) p. 031012.

Shape control of soft patchy nanoparticles under confinement, by I. E. Ventura-Rosales, L. Rovigatti, E. Bianchi, C. N. Likos, E. Locatelli, *Nanoscale*, , (2020).

Charge affinity and solvent effects in numerical simulations of ionic microgels, by G. Del Monte, F. Camerin, A. Ninarello, N. Gnan, L. Rovigatti, E. Zaccarelli, *J. Phys.: Condens. Matter*, , (2020).

2019 **TacoxDNA: A user-friendly web server for simulations of complex DNA structures, from single strands to origami**, by A. Suma, E., Poppleton, M., Matthies, P., Šulc, F., Romano, A. A. Louis, J. P. K. Doye, C., Micheletti, L. Rovigatti, *Macromolecules*, **52**, (2019) p. 7584.

Modeling Microgels with a Controlled Structure across the Volume Phase Transition, by A. Ninarello, J. J. Crassous, D. Paloli, F. Camerin, N. Gnan, L. Rovigatti, P. Schurtenberger, N., Zaccarelli, *Macromolecules*, **52**, (2019) p. 7584.

Numerical insights on ionic microgels: structure and swelling behaviour, by G. Del Monte, A. Ninarello, F. Camerin, L. Rovigatti, N. Gnan, E. Zaccarelli, *Soft Matter*, **15**, (2019) p. 8113.

- Connecting Elasticity and Effective Interactions of Neutral Microgels: The Validity of the Hertzian Model**, by L. Rovigatti, N. Gnan, A. Ninarello, E. Zaccarelli, *Macromolecules*, **52**, (2019) p. 4895.
- q -Independent Slow Dynamics in Atomic and Molecular Systems**, by P. H. Handle, L. Rovigatti, F. Sciortino, *Phys. Rev. Lett.*, **122**, (2019) p. 175501.
- Microgels Adsorbed at Liquid–Liquid Interfaces: A Joint Numerical and Experimental Study**, by F. Camerin, M. Á. Fernández-Rodríguez, L. Rovigatti, M.-N. Antonopoulou, N. Gnan, A. Ninarello, L. Isa, E. Zaccarelli, *ACS Nano*, **13** (2019) p. 4548.
- Numerical modelling of non-ionic microgels: an overview**, by L. Rovigatti, N. Gnan, L. Tavagnacco, J. A. Moreno, E. Zaccarelli, *Soft Matter*, **15**, (2019) p. 1108.
- 2018 **A new look at effective interactions between microgel particles**, by M. J. Bergman, N. Gnan, M. Obiols-Rabasa, J.-M. Meijer, L. Rovigatti, E. Zaccarelli, P. Schurtenberger, *Nat. Commun.*, **9**, (2018) p. 5039.
- How to Simulate Patchy Particles**, by L. Rovigatti, J. Russo and F. Romano, *Eur. Phys. J. E*, **41**, (2018) p. 59.
- Modelling realistic microgels in an explicit solvent**, by F. Camerin, N. Gnan, L. Rovigatti and E. Zaccarelli, *Sci. Rep.*, **8**, (2018) p. 14426.
- Force-Induced Unravelling of DNA Origami**, by M. C. Engel, D. M. Smith, M. A. Jobst, M. Sajfutdinow, T. Liedl, F. Romano, L. Rovigatti, A. A. Louis, J. P. K. Doye, *ACS Nano*, **12**, (2018) p. 6734.
- On the effect of the thermostat in non-equilibrium molecular dynamics simulations**, by J. Ruiz-Franco, L. Rovigatti, E. Zaccarelli, *Eur. Phys. J. E*, **41**, (2018) p. 80.
- An Accurate Estimate of the Free Energy and Phase Diagram of All-DNA Bulk Fluids**, by E. Locatelli and L. Rovigatti, *Polymers*, **10**, (2018) p. 447.
- Self-Dynamics and Collective Swap-Driven Dynamics in a Particle Model for Vitrimers**, by L. Rovigatti, G. Nava, T. Bellini and F. Sciortino, *Macromolecules*, **51**, (2018) p. 1232.
- Internal structure and swelling behaviour of in silico microgel particles**, by L. Rovigatti, N. Gnan and E. Zaccarelli, *J. Phys.: Condens. Matter*, **30**, (2018) p. 044001.
- 2017 **In Silico Synthesis of Microgel Particles**, by N. Gnan, L. Rovigatti, M. Bergman and E. Zaccarelli, *Macromolecules*, **50**, (2017) p. 8777.
- Free energy calculations for rings and chains formed by dipolar hard spheres**, by M. Ronti, L. Rovigatti, J. M. Tavares, A. O. Ivanov, S. S. Kantorovich and F. Sciortino, *Soft Matter*, **13**, (2017) p. 7870.
- Void-Based Assembly of Colloidal Crystals**, by N. Mahynski, L. Rovigatti, C. N. Likos and A. Z. Panagiotopoulos, *G.I.T. Laboratory Journal*, **5-6**, (2017) p. 32.
- Limiting the valence: advancements and new perspectives on patchy colloids, soft functionalized nanoparticles and biomolecules**, by E. Bianchi, B. Capone, I. Coluzza, L. Rovigatti and P. D. J. van Oostrum, *Phys. Chem. Chem. Phys.*, **19**, (2017) p. 19847.

- The role of directional interactions in the designability of generalized heteropolymers**, by C. Cardelli, V. Bianco, L. Rovigatti, F. Nerattini, L. Tubiana, C. Dellago and I. Coluzza, *Sci. Rep.*, **7**, (2017) p. 4986.
- Hierarchical self-organization of soft patchy nanoparticles into morphologically diverse aggregates**, by I. C. Gârlea, E. Bianchi, B. Capone, L. Rovigatti and C. N. Likos, *Curr. Opin. Colloid Interface Sci.*, **30**, (2017) p. 1.
- Condensation and Demixing in Solutions of DNA Nanostars and Their Mixtures**, by E. Locatelli, P. H. Handle, C. N. Likos, F. Sciortino and L. Rovigatti, *ACS Nano*, **11**, (2017) p. 2094.
- Re-entrant limits of stability of the liquid phase and the Speedy scenario in colloidal model systems**, by L. Rovigatti, V. Bianco, J. M. Tavares and F. Sciortino, *J. Chem. Phys.*, **146**, (2017) p. 041103.
- Connectivity, Dynamics, and Structure in a Tetrahedral Network Liquid**, by S. Roldán-Vargas, L. Rovigatti and F. Sciortino, *Soft Matter*, **13**, (2017) p. 514.
- 2016 **Small-angle neutron scattering and molecular dynamics structural study of gelling DNA nanostars**, by J. Fernandez-Castanon, F. Bomboi, L. Rovigatti, M. Zanatta, A. Paciaroni, L. Comez, L. Porcar, C. J. Jafta, G. C. Fadda, T. Bellini and F. Sciortino, *J. Chem. Phys.*, **145**, (2016) p. 084910.
- Bottom-Up Colloidal Crystal Assembly with a Twist**, by N. Mahynski, L. Rovigatti, C. N. Likos and A. Z. Panagiotopoulos, *ACS Nano*, **10**, (2016) p. 5459.
- Surface wave excitations and backflow effect over dense polymer brushes**, by S. Biagi, L. Rovigatti, F. Sciortino and C. Misbah, *Scientific Reports*, **6**, (2016) p. 22257.
- Direct Simulation of the Self-Assembly of a Small DNA Origami**, by B. E. K. Snodin, F. Romano, L. Rovigatti, T. E. Ouldrige, A. A. Louis and J. P. K. Doye, *ACS Nano*, **10**, (2016) p. 1724.
- Soft self-assembled nanoparticles with temperature-dependent properties**, by L. Rovigatti, B. Capone and C. N. Likos, *Nanoscale*, **8**, (2016) p. 3288.
- 2015 **How soft repulsion enhances the depletion mechanism**, by L. Rovigatti, N. Gnan, A. Parola and E. Zaccarelli, *Soft Matter*, **11**, (2015) p. 692.
- Temperature-induced structural transitions in self-assembling magnetic nanocolloids**, by S. S. Kantorovich, A. O. Ivanov, L. Rovigatti, J. M. Tavares, F. Sciortino, *Phys. Chem. Chem. Phys.*, **17**, (2015) p. 16601.
- Low temperature structural transitions in dipolar hard spheres: The influence on magnetic properties**, by S. S. Kantorovich, A. O. Ivanov, L. Rovigatti, J. M. Tavares, F. Sciortino, *J. Magn. Magn. Mater.*, **383**, (2015) p. 272.
- A comparison between parallelization approaches in molecular dynamics simulations on GPUs**, by L. Rovigatti, P. Šulc, I. Z. Reguly and F. Romano, *J. Comput. Chem.*, **36**, (2015) p. 1.
- 2014 **Gels of DNA Nanostars Never Crystallize**, by L. Rovigatti, F. Smallenburg, F. Romano and F. Sciortino, *ACS Nano*, **8**, (2014) p. 3567.
- Accurate phase diagram of tetravalent DNA nanostars**, by L. Rovigatti, F. Bomboi and F. Sciortino, *J. Chem. Phys.*, **140**, (2014) p. 154903.

- 2013 **Coarse-graining DNA for simulations of DNA nanotechnology**, by J. P. K. Doye, T. E. Ouldridge, A. A. Louis, F. Romano, P. Šulc, C. Matek, B. E. K. Snodin, L. Rovigatti, J. S. Schreck, R. M. Harrison and W. P. J. Smith, *Phys. Chem. Chem. Phys.*, **15**, (2013), p. 20395.
- Self-assembly in chains, rings and branches: a single component system with two critical points**, by L. Rovigatti, J. M. Tavares and F. Sciortino, *Phys. Rev. Lett.*, **111**, (2013) p. 168302.
- Branching points in the low-temperature dipolar hard sphere fluid**, by L. Rovigatti, S. Kantorovich, A. O. Ivanov, J. M. Tavares and F. Sciortino, *J. Chem. Phys.*, **139**, (2013) p. 134901.
- On the gas-liquid phase-separation and the self-assembly of charged soft dumbbells**, by S. Dussi, L. Rovigatti, F. Sciortino, *Mol. Phys.*, **111**, (2013) p. 3608.
- Nonmonotonic Magnetic Susceptibility of Dipolar Hard-Spheres at Low Temperature and Density**, by S. Kantorovich, A. O. Ivanov, L. Rovigatti, J. M. Tavares, F. Sciortino, *Phys. Rev. Lett.*, **110**, (2013) p. 148306.
- Computing the phase diagram of binary mixtures: A patchy particle case study**, by L. Rovigatti, D. de las Heras, J. M. Tavares, M. M. Telo da Gama, F. Sciortino, *J. Chem. Phys.*, **138** (16), (2013) p. 164904.
- 2012 **Sequence-dependent thermodynamics of a coarse-grained DNA model**, P. Šulc, F. Romano, T. E. Ouldridge, L. Rovigatti, A. A. Louis, and J. P. K. Doye, *J. Chem. Phys.*, **137** (13), (2012) p. 135101.
- Quantitative description of the self-assembly of patchy particles into chains and rings**, by J. M. Tavares, L. Rovigatti, and F. Sciortino, *J. Chem. Phys.*, **137** (4), (2012) p. 044901.
- Self-assembly of short DNA duplexes: from a coarse-grained model to experiments through a theoretical link**, by C. De Michele, L. Rovigatti, T. Bellini, and F. Sciortino, *Soft Matter*, **8**, (2012) pp. 8388–8398.
- Structural properties of the dipolar hard-sphere fluid at low temperatures and densities**, by L. Rovigatti, J. Russo, and F. Sciortino, *Soft Matter*, **8**, (2012) pp. 6310–6319.
- 2011 **No Evidence of Gas-Liquid Coexistence in Dipolar Hard Spheres**, by L. Rovigatti, J. Russo, and F. Sciortino, *Phys. Rev. Lett.*, **107**, (2011) p. 237801.
- Self and collective correlation functions in a gel of tetrahedral patchy particles**, by L. Rovigatti and F. Sciortino, *Mol. Phys.*, **109** (23-24), (2011) pp. 2889–2896.
- The vibrational density of states of a disordered gel model**, by L. Rovigatti, W. Kob, and F. Sciortino, *J. Chem. Phys.*, **135** (10), (2011) p. 104502.

Book contributions

- 2017 **A Nucleotide-Level Computational Approach to DNA-Based Materials**, by F. Romano and L. Rovigatti, in *Design of Self-Assembling Materials*, edited by I. Coluzza, Cham (2017), ISBN: 978-3-319-71576-6.

- 2015 **Accurate Coarse-Grained Potentials for Soft Matter Systems**, by R. Blaak, B. Capone, C. N. Likos and L. Rovigatti, in **Computational Trends in Solvation and Transport in Liquids**, of the IAS Series **28**, edited by G. Sutmann, J. Grotendorst, G. Gompper and D. Marx. Forschungszentrum, Juelich (2015), ISBN: 978-3-95806-030-2.

Organised events

- 2016 **Local committee member and editor of the book of abstracts**, *ECIS 2016*, Rome – Italy.
- 2013 **Local committee member and editor of the book of abstracts**, *ISMC 2013*, Rome – Italy.

Institutional Responsibilities

- 2021 – yoday **Head of Departmental Teaching Activities (delegato del Direttore per la Didattica)**, *Physics Department, Sapienza University of Rome*.
- 2021 **Member of the Committee for the creation of a Bachelor Degree in Artificial Intelligence**, *Physics Department, Sapienza University of Rome*.
- 2017 – 2018 **Member of the “ISC Committee for Research Project Management and Evaluation” (Commissione ISC per la Valutazione e la Gestione dei Progetti di Ricerca)**, *Institute of Complex Systems (CNR-ISC)*.

Editorial activities

Guest editor of the special issue on “Advances in Computational Methods for Soft Matter Systems” for *The European Physical Journal E*.

Languages

Italian (native), English (proficient) and German (elementary)

Other activities

Reviewer for *Nanoscale*, *Nature Communications*, *Physical Review Applied Letters*, *Physical Review B*, *Physical Review E*, *Physical Review Letters*, *Polymers*, *Soft Matter*, *The European Physical Journal E* and *The Journal of Chemical Physics*.

Lead developer of [oxDNA](#), an open-source simulation package for coarse-grained simulations of DNA and RNA, and of [cogli2](#), a tool for the visualisation and rendering of configurations of coarse-grained systems.