

Dr Camille Scalliet

L'Oréal-UNESCO For Women in Science Fellow

Academic positions

- Oct. 2020- **Herchel Smith Postdoctoral Fellow**, Department of Applied Mathematics and Theoretical Physics, University of Cambridge.
- Sept. 2020- **Ramon Jenkins Research Fellow**, Sidney Sussex College, University of Cambridge.
- Oct. 2019-Oct. 2020 **Postdoctoral Research Associate**, *Soft Matter Group*, Department of Applied Mathematics and Theoretical Physics, University of Cambridge.

Education

- Sept. 2016 - **PhD in Theoretical Physics**, *Laboratoire Charles Coulomb*, Montpellier, France.
- Sept. 2019 “*Amorphous solids from the glass transition to 1 Kelvin*”.
- Supervisors : Drs. Ludovic Berthier and Francesco Zamponi (Ecole Normale Supérieure, Paris).
 - Collaborator of the “[Cracking the glass problem](#)” collaboration (Simons Foundation).
- 2013 - 2015 **Master in Physics**, *Ecole Normale Supérieure de Lyon*, France | Highest Honours.
Nonequilibrium Statistical Physics and Nonlinear Systems. Graduation Rank : 4/26.
- January - **Erasmus Exchange programme**, *La Sapienza University*, Rome, Italy.
- July 2014 Statistical Physics and Computational Physics. Best grade (30/30) obtained in the first examination session.
- 2012 - 2013 **Bachelor in Physics**, *Ecole Normale Supérieure de Lyon*, France | Highest Honours.

Publications

11 published articles + 2 preprints, 8 as first author (including 4 PRL, 1 Nat. Com.).

- [12] **Excess wings and asymmetric relaxation spectra in a facilitated trap model**,
[C. Scalliet](#), B. Guiselin, L. Berthier,
J. Chem. Phys. 155, 064505 (2021).
- [11] **Microscopic origin of excess wings in relaxation spectra of deeply supercooled liquids**,
B. Guiselin*, [C. Scalliet](#)*, L. Berthier,
arXiv preprint 2103.01569 (under review at Nature Physics).
- [10] **Depletion of two-level systems in ultrastable computer-generated glasses**,
D. Khomenko*, [C. Scalliet](#)*, L. Berthier, D.R. Reichman, F. Zamponi,
Physical Review Letters 124, 225901 (2020), Featured in Physics.
- [9] **Nature of excitations and defects in structural glasses**,
[C. Scalliet](#), L. Berthier, F. Zamponi,
Nature Communications 10, 5102 (2019).
- [8] **Does the Adam-Gibbs relation hold in simulated supercooled liquids?**,
M. Ozawa, [C. Scalliet](#), A. Ninarello, L. Berthier,
The Journal of Chemical Physics 151, 084504 (2019).
- [7] **Rejuvenation and Memory Effects in a Structural Glass**,
[C. Scalliet](#), L. Berthier,
Physical Review Letters 122, 255502 (2019), Editor's Suggestion.
- [6] **Perspective : Configurational entropy of glass-forming liquids**,
L. Berthier, M. Ozawa, [C. Scalliet](#),
The Journal of Chemical Physics 150 (16), 160902 (2019).

- [5] **Efficient swap algorithms for molecular dynamics simulations of equilibrium supercooled liquids**,
L. Berthier, E. Flenner, C. J. Fullerton, C. Scalliet, M. Singh,
Journal of Statistical Mechanics : Theory and Experiment 6, 064004 (2019).
- [4] **Marginally stable phases in mean-field structural glasses**,
C. Scalliet, L. Berthier, F. Zamponi,
Physical Review E 99, 012107 (2019).
- [3] **Absence of Marginal Stability in a Structural Glass**,
C. Scalliet, L. Berthier, F. Zamponi,
Physical Review Letters 119, 205501 (2017).
- [2] **Cages and anomalous diffusion in vibrated dense granular media**,
C. Scalliet, A. Gnoli, A. Puglisi, A. Vulpiani,
Physical Review Letters 114, 198001 (2015).
- [1] **Measurements of the dielectric and viscoelastic constants in mixtures of 4,4'-n-octylcyanobiphenyl and biphenyl**,
P. Oswald, C. Scalliet,
Physical Review E 89, 032504 (2014).

Scholarships, Fellowships and Awards

- 2020-2023 **Herchel Smith Fellow**, *University of Cambridge*.
Independent postdoctoral position. Salary + £45 000 research grant.
- 2020-2023 **Junior Research Fellow**, *Sidney Sussex College, University of Cambridge*.
ca. £130,000, success rate <1%
- 2018 **L'Oréal-UNESCO For Women in Science Fellowship**, 15 000€ for independent research.
- 2016-2019 **PhD scholarship**, 65 000€ from French Education Ministry for 'Normalien' (student at the Ecole Normale Supérieure).
- 2014 **Erasmus Fellowship**, La Sapienza University, Rome, Italy.
- 2012-2016 **Ecole Normale Supérieure Stipendiary studentship**, ca. 1,300€/month for 4 years.
Most prestigious post-secondary scholarship in France

Research associate visits

- July 2018 **Department of Chemistry**, *Columbia University (USA)*, 1 month.
Invited by Prof. David R. Reichman. Collaboration on the detection of two-level systems in computer glasses.
- April 2018 **Department of Chemistry**, *Duke University (USA)*, 1 week.
Invited by Prof. Patrick Charbonneau to discuss the numerical study of the Gardner transition in glasses.

Conferences, seminars, and summer schools

- 2021 Soft Matter for All, *Princeton (online)*, **Invited talk** after nomination as 'Rising Stars in Soft and Biological Materials'.
Lennard-Jones Centre, *University of Cambridge*, **Invited seminar**.
11th Liquid matter conference, *online*, Contributed talk.
Glassy Systems and Inter-Disciplinary Applications, *Cargese (Fr)*, **Invited seminar**.
Beg Rohu Summer School : Stat. Mechanics and Emergent Phenomena in Biology, *Quiberon (Fr)*.
Interdisciplinary Challenges in Non-Equilibrium Physics, *online*, **Invited talk**.
CECAM workshop Recent Advances on the Glass Problem, *online*, **Invited talk**.
- 2020 Complex Fluids 2020 Symposium, *online*, Contributed talk.
Edwards Centre for Soft Matter mini-conference, *Cambridge*, Organiser.
Physics Department, *Bristol*, **Invited Seminar**.
CMD2020GEFES International conference, *Madrid (Esp)*, **Invited talk**.

- Collective Phenomena Group Meeting, *Cambridge*, **Invited talk**.
 Edwards Centre for Soft Matter mini-conference, *Cambridge*, Contributed talk.
- 2019 Workshop : Two-level systems in glasses, *Paris (Fr)*, Organiser.
 Simons Collaboration workshop, *Royaumont (Fr)*, Seminar.
 DAMTP – Soft Matter Group, *University of Cambridge (UK)*, **Invited Seminar**.
 Beg Rohu Summer School : Glasses, Jamming and Slow Dynamics, *Quiberon (Fr)*.
 Laboratoire Interdisciplinaire de Physique, *Grenoble (Fr)*, **Invited Seminar**.
 Institut Lumière Matière, *Université de Lyon (Fr)*, **Invited Seminar**.
 APS March Meeting, *Boston (USA)*, **Invited talk**.
 Simons Collaboration Annual Meeting, *New York (USA)*, Poster.
 Journées de Physique Statistique – ENS, *Paris (Fr)*, Contributed talk.
- 2018 DAMTP – Soft Matter Group, *University of Cambridge (UK)*, **Invited Seminar**.
 Simons Collaboration workshop, *Royaumont (Fr)*, Seminar.
 Unifying Concepts in Glass Physics, *Bristol (UK)*, Contributed talk.
 Department of Mathematics, *Duke University (USA)*, **Invited Seminar**.
 Simons Collaboration Annual Meeting, *New York (USA)*, Poster.
 Workshop : marginal stability in glasses, *Montpellier (Fr)*, Organiser.
- 2017 Simons Collaboration workshop, *Royaumont (Fr)*, Seminar.
 Boulder School : Frustrated and Disordered Systems, *Boulder (USA)*, 1 month.
 APS March Meeting, *New Orleans (USA)*, Contributed talk.
 Simons Collaboration Annual Meeting, *New York (USA)*, Poster.
 CECAM Workshop Glass and Jamming Transitions, *Lausanne (Swz)*, Poster.
- 2016 Workshop : Nonlinear Response in Complex Matter, *Primosten (Croatia)*, Contributed talk.
 Laboratoire de Physique Statistique, *ENS Paris (Fr)*, Seminar.
 Simons Collaboration Kick-off Meeting, *Chicago (USA)*, Contributed talk.
- 2015 Lorentz Center – Active Liquids, *Leiden University (NL)*.
 Workshop on Dynamics in Viscous Liquids, *University of Montpellier (Fr)*.

Internships

- 2015 **Research project**, University of Montpellier, France.
Numerical investigation of the Gardner transition in finite dimensional glasses
 Supervisor | Ludovic Berthier
- 2014 **Master - 2nd year**, Gulliver Lab, ESPCI Paris, France | 16 weeks.
Revisiting the coffee-ring effect with colloids and confocal microscopy
 Supervisor | Olivier Dauchot
- 2014 **Master - 1st year**, Institute for Complex Systems, Rome, Italy | 12 weeks.
Elastic cages and anomalous diffusion in vibrated dense granular media
 Supervisor | Andrea Puglisi
- 2013 **Bachelor**, Ecole Normale Supérieure de Lyon, France | 8 weeks.
Effect of a rigid nonpolar solute on the viscoelastic properties of a nematic liquid crystal
 Supervisor | Patrick Oswald

Teaching and Outreach

- 2020-2021 **Volunteer for the Fondation L'Oréal program 'For Girls in Science'**, 2h/week free tutoring for underprivileged high school girls.
- 2020 **Interviewer for Admissions in Mathematics**, Sidney Sussex College, University of Cambridge.
- 2017-2020 **Active member of 'Women and Science' (French national association)**, Organisation of general public events to promote science : Festival of Science, school interventions, film debates.
- 2016-2019 **Teaching Assistant**, University of Montpellier (64 h/year), Undergraduate tutorials (Classical Mechanics) and Practical Physics (Optics and Light).

2013 - 2014 **Secretary of the Sports Association**, Ecole Normale Supérieure de Lyon.

Annual budget 45 k€, more than 1000 members.

2013 - 2014 **Physics and Chemistry tutorials**, Lycée Assomption Bellevue, Lyon | 60 h.

Oral examinations to prepare competitive national examinations for the French Grandes Ecoles