Chiara Saffirio

Curriculum Vitae

Dep. Mathematik und
Informatik, Universität Basel
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chiara.saffirio@unibas.ch

Personal Information

Birth: **September 9, 1985**, Roma, Italy
Citizen: **Italian**
Civil Status: **Married, two children**
ORCID: **0000-0001-7939-6498**

Education

Dec. 19, 2012 **Ph.D. in Mathematics**, *La Sapienza University of Rome*, Roma
Advisor: Prof. Mario Pulvirenti

Oct. 2007 - Jul. 2009 **Master in Mathematics**, *La Sapienza University of Rome*, Roma
110/110 cum laude

Oct. 2004 - Sep. 2007 **Bachelor in Mathematics**, *La Sapienza University of Rome*, Roma
110/110 cum laude

Employment History

from Aug. 2019 **SNSF Eccellenza Professorship**, *Departement Mathematik und Informatik*, Universität Basel, (SNSF Professor)

Jul. 2020 - Nov. 2020 **Maternity leave**

Aug. 2016 - Jul. 2019 **SNSF Ambizione Fellow**, *Institut für Mathematik*, Universität Zürich
Lecturer at the Institut für Mathematik UZH

Apr. 2015 - Aug. 2015 **Maternity leave**

Feb. 2014 - Jul. 2016 **Post Doc**, *Institut für Mathematik*, Universität Zürich
Mentor: Prof. Benjamin Schlein

Jan. 2013 - Jan. 2014 **Post Doc**, *Hausdorff Center for Mathematics*, Bonn
Mentor: Prof. Benjamin Schlein

Feb. 2010 - Jun. 2010 **GREFI-MEFI Fellowship**, *ENS Cachan and Orsay Paris Sud*, Paris
Mentor: Prof. L. Desvillettes

Research Interests

kinetic theory; scaling limits in interacting particle systems (classical and quantum); semiclassical analysis; theoretical aspects of PDEs.

Approved Research Projects

Sep. 2023 - Aug. 2027 **ERC-2021-Sarting Grant 101039797**, *European Research Council*, EUR 1425005
Funded by the State Secretariat for Education, Research and Innovation SERI due to non-association of Switzerland to Horizon Europe.

Nov. 2021 - Oct. 2023 **Marie Sklodowska-Curie individual fellowships 2020**, *Horizon 2020-MSCA-IF-2020*, role: PI of the project, supervising Dr. Leopold, EUR 191747

Aug. 2019 - Jul. 2024 **SNSF Eccellenza Professorial Fellow**, *Swiss National Science Foundation*, Project PCEFP2_181153/1, CHF 1585377

Aug. 2016 - Jul. 2019 **SNSF Ambizione Grant**, *Swiss National Science Foundation*, Project PZ00P2_161287/1, CHF 377928

Nov. 2015 - Jul. 2016 **Forschungskredit Post Doc**, *Universität Zürich*, Project UZHFK-15-108, CHF 76000

List of Publications and Preprint

[29] N. Leopold, C. Saffirio: Derivation of the Vlasov-Maxwell system from the Maxwell-Schrödinger equations with extended charges. arXiv:2308.16074, *submitted*.

[28] C. Saffirio: Weakly interacting Fermions: mean-field and semiclassical regimes. arXiv:2307.07762, *submitted*.

[27] G. Crippa, M. Inversi, C. Saffirio, G. Stefani: Existence and stability of weak solutions of the Vlasov–Poisson system in localized Yudovich spaces. arXiv:2306.00523, *submitted*.

[26] L. Lafleche, C. Saffirio: Uniqueness criteria for the Vlasov–Poisson system and applications to semiclassical analysis. arXiv:2303.10634, *submitted*.

[25] J. Chong, L. Lafleche, C. Saffirio: On the semiclassical regularity of thermal equilibria. arXiv:2208.07911, *submitted*.

[24] C. Saffirio: The Vlasov equation as the mean-field and semiclassical limit of many interacting fermions. *IAMP News Bulletin* April 2022, http://www.iamp.org/bulletins/Bulletin-Apr2022-print.pdf

[23] R. Bianchini, C. Saffirio: Fluid instabilities, waves and non-equilibrium dynamics of interacting particles: a short overview. *Mathematics in Engineering* 2023, vol. 5, issue 2: 1-5. doi:10.3934/mine.2023033

[22] J. Chong, L. Lafleche, C. Saffirio: On the L^2 rate of convergence in the limit from Hartree to Vlasov-Poisson equation. *Journal de l'École Polytechnique – Mathématique* 10 (2023), 703–726, arXiv:2203.11485.

[21] N. Leopold, C. Saffirio: Propagation of moments for large data and semiclassical limit to the relativistic Vlasov equation. *SIAM J. Math. Anal.* 55 (2023), no. 3, arXiv:2203.03031.

[20] J. Chong, L. Lafleche, C. Saffirio: Global in time semiclassical regularity for the Hartree-Fock equation. *J. Math. Phys.* 63 (2022), no.8, 10 pp. arXiv:2202.13998.

[19] J. Chong, L. Lafleche, C. Saffirio: From Schrödinger to Hartree-Fock and Vlasov equations with Singular potentials. arXiv:2103.10946, *submitted*.

[18] L. Lafleche, C. Saffirio: Strong semiclassical limit from Hartree and Hartree-Fock to Vlasov-Poisson equation. *Analysis & PDE* 16 (2023), no. 4, 891–926, arXiv:2003.02926.

[17] C. Saffirio: From the Hartree to the Vlasov dynamics: conditional strong convergence. In: From Particle Systems to Partial Differential Equations pp. 335–354, Springer Proceedings in Mathematics & Statistics book series 352 (2021), Springer, Cham, arXiv:2003.01001.

[16] A. Nota, C. Saffirio, S. Simonella: The generalized Boltzmann equation for magneto-transport in the Lorentz gas: rigorous validity. To appear in *Annales de l'Institut Henri Poincaré (B)* 58 (2022), no. 2, 1228–1243, arXiv:1910.12983.

[15] C. Saffirio: From the Hartree equation to the Vlasov-Poisson system: strong convergence for a class of mixed states. *SIAM J. Math. Anal.* 52 (2020), no. 6, 5533–5553, arXiv:1903.06013

[14] A. Nota, C. Saffirio, J.L.L. Velázquez: Mini-Workshop: Lorentz Gas Dynamics: particle systems and scaling limits. Oberwolfach Rep. 16 (2019), no. 1, 617–661

[13] C. Saffirio: Semiclassical limit to the Vlasov equation with inverse power law potentials. *Commun. Math. Phys.* 373 (2020), no. 2, 571–619

[12] C. Saffirio: Mean-field evolution of fermions with singular interaction. In: Cadamuro D., Duell M., Dybalski W., Simonella S. (eds) Macroscopic Limits of Quantum Systems. MaLiQS 2017. Springer Proceedings in Mathematics & Statistics 270. Springer, Cham.

[11] G. Crippa, S. Ligabue, C. Saffirio: Lagrangian solutions to the Vlasov-Poisson system with a point charge. *Kinet. Relat. Mod.* 11 (2018), no. 6, 1277–1299

[10] M. Porta, S. Rademacher, C. Saffirio, B. Schlein: Mean field evolution of fermions with Coulomb interaction. *J. Stat. Phys.* 166 (2017), pp. 1345–1364

[9] C. Saffirio: Derivation of the Boltzmann equation: hard-spheres, short range potentials and beyond. Springer Proceedings in Mathematics & Statistics 162 (2016)

[8] N. Benedikter, M. Porta, C. Saffirio, B. Schlein: From the Hartree-Fock dynamics to the Vlasov equation. *Arch. Ration. Mech. Anal.* 221 (2016), no. 1, pp. 273–334

[7] C. Boldrighini, A. Marchesiello, C. Saffirio: Weak dependence for local functions of Markov chains on $\mathbf{Z}^d$. *Methods Funct. Anal. & Topology* 21 (2015), no. 4, pp. 302–314

[6] N. Benedikter, V. Jaksic, M. Porta, C. Saffirio, B. Schlein: Mean-field Evolution of Fermionic Mixed States. *Comm. Pure Appl. Math.* (2015), DOI: 10.1002/cpa.21598

[5] L. Desvilettes, E. Miot, C. Saffirio: Polynomial propagation of moments and global existence for a Vlasov–Poisson system with a point charge. *Ann. Inst. H. Poincaré Anal. Non Linéaire* 32 (2015), no. 2, pp. 373–400

[4] M. Pulvirenti, C. Saffirio, S. Simonella: On the validity of Boltzmann equation for positive short range potentials. *Rev. in Math. Phys.* 26 (2014), no. 2, 64 pp.

[3] S. Buchholz, C. Saffirio, B. Schlein: Multivariate Central Limit Theorem in Quantum Dynamics. *J. Stat. Phys.* 154 (2014), no. 1-2, pp. 113–152

[2] A. Bobylev, M. Pulvirenti, C. Saffirio: From particle systems to the Landau equation: a consistency result. *Commun. Math. Phys.* 319 (2013), no. 3, pp. 683–702

[1] E. Miot, M. Pulvirenti, C. Saffirio: On the Kac model for the Landau equation. *Kinet. Relat. Mod.* 9 (2011), no. 1, pp. 333–344

Teaching Activities

Fall Term 2008 - 2009 **TA**, Geometry, Engineering Department, La Sapienza Università di Roma

Fall Term 2009 - 2010 **TA**, Geometry, Engineering Department, La Sapienza Università di Roma

Spring Term 2012 **TA**, Probability, Department of Mathematics, La Sapienza Università di Roma

Fall Term 2014 - 2015 **Graduate class**, Introduction to kinetic theory, Institut für Mathematik, UZH

Fall Term 2015 - 2016 **TA**, Analysis 1, Institut für Mathematik, UZH

Spring Term 2016 **TA**, Analysis 2, Institut für Mathematik, UZH

Fall Term 2016 - 2017 **Student seminar**, Introduction to Harmonic Analysis, Institut für Mathematik, UZH

Fall Term 2017 - 2018 **Undergraduate class**, Introduction to kinetic theory, Institut für Mathematik, UZH
Lecture notes and exercises available online.

Fall Term 2018 - 2019 **Student seminar**, Optimal Transportation and Functional Inequalities, Institut für Mathematik, UZH

Fall Term 2019 - 2020 **Student seminar**, Introduction to Harmonic Analysis, Departement Mathematik und Informatik, Universität Basel

Spring Term 2020 **Undergraduate class**, Introduction to Mathematical Quantum Theory, Departement Mathematik und Informatik, Universität Basel

Spring Term 2021 **Undergraduate class**, Introduction to Kinetic Theory, Departement Mathematik und Informatik, Universität Basel

Fall Term 2021 **Undergraduate class**, Real Analysis, Departement Mathematik und Informatik, Universität Basel

Spring Term 2023 **Undergraduate class**, Probability Theory, Department Mathematik und Informatik, Universität Basel

Fall Term 2023 **Undergraduate seminar**, Examples and counterexamples in Analysis, Department Mathematik und Informatik, Universität Basel

Supervision of Students and Postdocs

2019 -2021 **Dr. Daniele Dimonte**, *postdoc*

2019 - 2022 **Dr. Théophile Dolmaire**, *postdoc*, (now postdoc at the HIM in Bonn)

2019 - present **Dr. Nikolai Leopold**, *postdoc*
from Winter 2021 Marie Curie Fellowship granted by the European Research Council.

2022 **Marius Gisler**, *bachelor student*, semester project, cosupervised with N.Leopold

2022 - present **Dominik Nowak**, *PhD student*

2023 - present **Stefan Strebel**, *master student*, semester project

2023 **Riccardo Tiziano Grieco**, *bachelor student*, semester project

Editorial Activity

2023 - present **Section Editor**, *Annales Henri Poincaré*, Nonlinear Partial Differential Equations in Mathematical Physics

2022 - present **Associate Editor**, *Kinetic and Related Models, AIMS Journal*

2019 - 2022 **Guest Editor**, Mathematics in Engineering, *special issue " Fluid instabilities, waves and non-equilibrium dynamics of interacting particles"*

2018 - present **External grant evaluator**, *Deutsche Forschungsgemeinschaft (DFG), Research Grants Council of Hong Kong and Austrian Science Fund (FWF)*

2014 - present **Referee for *AMS Mathematical Surveys and Monographs* and *AMS Contemporary Mathematics book series***

2012 - present **Referee for several international journals**, *among them: Inventiones Mathematicae, Anal. & PDE, Ann. Probab., Arch. Ration. Mech. Analysis, Commun. Math. Phys., Commun. Pure Appl. Math., J. Funct. Anal., ...*

Institutional Responsibilities

2014 - 2015 **Member of the hiring committee for the area "Mathematical Physics" APNT NCCR SwissMAP**, *Institut für Mathematik*, Universität Zürich

Oct. 2019 **Invited panelist**, *Zurich Graduate School of Mathematics Forum*, ETH and UZH

2020 - present **ANVUR evaluator for the Italian Research Department**

2021 - 2022 **Member of the hiring committee for a Professorship in Cyber Security**, *DMI*, University of Basel

Sep. 2022 ***Rapporteur* and *membre de jury* for the PhD thesis of I. Ben Porat**, *Ecole Polytechnique de Paris*

Dec. 2022 **Member of the hiring committee for a TTAP**, *CY Cergy Paris Université*

Dec. 2022 **Member of the hiring committee for a RTDa (NTTAP)**, *Politecnico di Milano*

Mar. 2023 **Member of the hiring committee for a RTDa (NTTAP)**, *GSSI L'Aquila*

Oct. 2023 ***Rapporteur* and *membre de jury* for the PhD thesis of D. Périce**, *ENS Lyon*

Oct. 2023 ***Membre de jury* for the PhD thesis of C. Le Bihan**, *ENS Lyon*

Oct. 2023 **Member of the hiring committee for Associate Professor**, *Politecnico di Milano*

From Jan. 2024 **Secretary of the International Association of Mathematical Physics**, *IAMP*

Membership in Scientific Societies

2011 - present **Member of INdAM**, *Istituto Nazionale di Alta Matematica*, Section GNFM, Gruppo Nazionale di Fisica Matematica

2014 - present **Member of IAMP**, *International Association of Mathematical Physics*

2019 - present **Member of the UMI**, *Unione Matematica Italiana*

2019 - present **Member of the EWM**, *European Women in Mathematics*

2019 - present **Member of the NCCR SwissMAP**, project Quantum Systems

2023 - present **Member of the AWMP**, *Association of Women in Mathematical Physics*

2023 - present **Member of the Scientific Committee**, Summer school "Methods & Models of Kinetic Theory"

2023 - present **Member of the Swiss Academy of Sciences (SCNAT)**, *Platform Mathematics, Astronomy, Physics*

Organisation of Conferences and Seminars

Sep. 2014 **Coorganiser of workshop**, *Erwin Schrödinger Institute*, Vienna
"Scaling limits and effective theories in classical and quantum mechanics"

Mar. 2019 **Coorganiser of mini-workshop**, *MFO*, Oberwolfach
"Lorentz gas dynamics: particle systems and scaling limits"

Jun. 2019 **Coorganiser of workshop**, *HCM*, Bonn
"Effective equations: frontiers in classical and quantum systems"

2019 - present **Coorganiser of the Analysis and Mathematical Physics Seminar**, *University of Basel*

2019 - present **Coorganiser of the Basel-Zürich Analysis Seminar**, *University of Basel and UZH*

Jun. 2021 **Coorganiser of workshop**, *NCCR SwissMAP Research Station*, Les Diablerets
"Emergent theories for wave turbulence and particle dynamics"

Aug. 2021 **Coorganiser of Young Researchers Symposium Session 04**, *Geneva*, Partial Differential Equations, General Relativity and Dynamical Systems
Satellite conference of the International Congress of Mathematical Physics 2021

2021 - present **Coorganiser of the Kinetic Theory Seminar**, *University of Basel and ETH Zurich*

2023 - present **Member of the organising committee of the Young Faculty Meeting (YFM)**, *Swiss Academy of Sciences (SCNAT)*, Platform Mathematics, Astronomy, Physics (MAP)

Jun. 2023 **Coorganiser of workshop**, *NCCR SwissMAP Research Station*, Les Diablerets
"Effective theories in classical and quantum particle systems"

Oct. 2023 **Coorganiser of mini-workshop**, *MFO*, Oberwolfach
"Mathematics of Many-body Fermionic Systems"

Jun. 2024 **Coorganiser of the LSMath (former MSRI) Summer Graduate School**, *Berkley*, USA
"Particle interactive systems: Analysis and computational methods"

Jul. 2024 **Coorganiser of the International Congress of Mathematical Physics 2024 Session 5**, *Strasbourg*, FR
"Many-body Quantum Systems & Condensed Matter Physics"

Aug. - Dec. 2025 **Coorganiser of the LSMath (former MSRI) Trimester Program**, *Berkley*, USA
"Kinetic Theory: novel statistical, stochastic and analytical methods"

Prizes, awards, fellowships

Oct. 2022 **Oden Institute Fellowship for visiting Professors**, University of Texas at Austin

Aug 2021 **IUPAP Young Scientist Prize in Mathematical Physics**, *awarded at the International Conference on Mathematical Physics 2021*

May 2019 **Group leader at Hausdorff Junior Trimester Program "Kinetic Theory"**
Group name: Scaling limits for particle systems.

Nov. 2018 **SNSF Eccellenza Professorial Fellowship**, *Swiss National Science Foundation*
Starting date: Aug. 2019

Aug. 2015 **SNSF Ambizione Fellowship**, *Swiss National Science Foundation*
Starting date: Aug. 2016

Jun. 2015 **Forschungskredit Post Doc Fellowship**, *Universität Zürich*

Jul. 2012 **Borsa di Perfezionamento all'estero**, *La Sapienza University of Rome*

Feb. 2010 **GDRE GREFI-MEFI fellowship**
Orsay-Paris Sud & ENS Cachan

Habilitations

Feb. 2014 **Maître de Conférences qualification**, sections 25 and 26

Feb. 2023 **Abilitazione Scientifica Nazionale in Fisica Matematica**, *Professore di I fascia*, Italian Habilitation to Full Professor in Mathematical Physics

Invitations and talks

Feb. 2011 **ENS Cachan**, *FR*, invited by L. Desvillettes

May 2011 **C.I.R.M. Luminy**, *FR*, "Méthodes Probabilists en Theorie Cinétique", invited talk

Jul. 2011 **C.I.R.M. Luminy**, *FR*, "Méthodes Probabilists en Theorie Cinétique"

Jan. 2012 **ENS Cachan**, *FR*, invited by L. Desvillettes

May 2012 **HCM Bonn**, *DE*, Young Women in PDEs, invited talk

Feb. 2013 **Catania**, *IT*, "Kinetic theory and applications", invited talk

Apr. 2013 **University of Bonn**, *DE*, invited talk

Jun. 2013 **ACMAC Heraklion**, *GR*, "Kinetic descr. of multiscale phenomena", invited talk

Jul. 2013 **Orsay-Paris Sud**, *FR*, invited by Laboratoire AN-EDP

Dec. 2013 **ENS Paris**, *FR*, invited by L. Saint-Raymond

Dec. 2013 **La Sapienza Università di Roma**, *IT*, invited talk

Mar. 2014 **King's College London**, *UK*, invited by M. Hadzic

Feb. 2014 **LPMA Université Paris 7**, *FR*, invited talk

oct. 2014 **Basel Universität**, *CH*, invited talk

Nov. 2014 **University of Cambridge**, *UK*, invited talk

Nov. 2014 **C.I.R.M. Luminy**, *FR*, "Kinetic Theory", invited talk

Dec. 2014 **University of Braga**, *Portugal*, "Particle systems and PDEs IV", invited talk

Feb. 2016 **Université de Grenoble**, *FR*, "Huitième rencontre du GDR", invited talk

Mar. 2016 **ETH**, *CH*, "Quantum many-body problem and mean-field approximations", invited talk

May 2016 **Cambridge**, *UK*, "Mathematical topics in kinetic theory", invited talk

Sep. 2016 **MFO workshop**, *DE*, "Many-Body Quantum Systems and Effective Theories"

Oct. 2016 **GSSI L'Aquila**, *IT*, "Kinetic theory and its neighbours", invited talk

Nov. 2016 **ETH Zürich**, *CH*, "Workshop in Mathematical Physics", invited talk

Dec. 2016 **WPI Vienna**, *Austria*, "Mean-field dynamics of many particle systems", invited talk

Jan. 2017 **Université Paris Diderot**, *FR*, invited by L. Desvillettes

Feb. 2017 **SISSA Trieste**, *IT*, invited by A. Michelangeli and G. Dell'Antonio

Mar. 2017 **University of Warwick**, *UK*, invited talk

Mar. 2017 **TU Munich**, *DE*, workshop in honor of H. Spohn "Macroscopic limits of quantum systems", invited talk

Jun. 2017 **Karlstad**, *Sweden*, workshop in honor of A. Bobylev "Kinetic theory and applications", invited talk

Jul. 2017 **University of Bonn**, *DE*, invited by J. L. Velázquez

Aug. 2017 **LMU Munich**, *DE*, "Analysis of effective one-particle eq.ns and their derivation", invited talk

Oct. 2017 **C.I.R.M. Luminy**, *FR*, "Collisionless Boltzmann (Vlasov) equation and modeling of self-gravitating systems and plasmas", invited talk

Nov. 2017 **Université de Nice**, *FR*, "Particle systems and PDEs VI", invited talk

Dec. 2017 **MFO workshop**, *DE*, "Classical and quantum models of many-particle systems", invited talk

Sep. 2018 **CRM workshop**, *Montreal, CA*, "Many-Body Quantum Mechanics", invited talk

Sep. 2018 **HCM Bonn**, *DE*, "Young women in Mathematical Physics", invited talk

Feb. 2019 **Dundee University**, *UK*, invited talk

Mar. 2019 **MFO mini-workshop**, *DE*, "Lorentz gas dynamics: particle systems and scaling limits"

May 2019 **University of Heidelberg**, *DE*, Colloquium

Jun. 2019 **HIM Bonn**, *DE*, Junior Trimester Program Kinetic Theory, invited

Jul. 2019 **University of Basel**, *CH*, "Geometric Measure Theory and PDEs", invited talk

Sep. 2019 **Congresso dell'Unione Matematica Italiana**, *Pavia, IT*, invited talk
Section of Mathematical Physics

Sep. 2019 **Centro E. Majorana, Erice**, *IT*, "New trends in propagation of linear and nonlinear wave phenomena", invited talk

Sep. 2019 **MFO workshop**, *DE*, "Classical and Quantum Mechanical Models of Many-Particle Systems", invited talk

Oct. 2019 **C.I.R.M. Luminy**, *FR*, "The Analysis of Complex Quantum Systems: Large Coulomb Systems and Related Matters", invited talk

Nov. 2019 **Cardiff University**, *UK*, invited talk

Jan. 2020 **EPFL**, *CH*, Colloquium

Jan. 2020 **EPFL**, *CH*, "Turbulence in fluids and PDEs", invited talk

Dec. 2020 **MFO workshop**, *DE*, "Classical and quantum models of many-particle systems"

Dec. 2020 **online**, *UK*, "MAFRAN days", invited mini-course

Jan. 2021 **Geneva**, *CH*, Math. Department, Colloquium

Jan. 2021 **Geneva**, *CH*, Math. and Phys. Departments, Colloquium

Feb. 2021 **online**, *IT*, "Winter prelude to Porto Ercole Summer School", invited mini-course

Mar. 2021 **GSSI**, *IT*, invited talk

Mar. 2021 **SISSA**, *IT*, invited talk

Mar. 2021 **Dijon**, *FR*, GDR DYNQUA, invited mini-course

Mar. 2021 **University of Warsaw**, *PL*, invited talk

May 2021 **University of Basel**, *CH*, Physics Department, Colloquium

Jun. 2021 **Open PDE & Analysis Seminar and Lectures**, *online*, invited talk

July 2021 **YRS**, *CH*, Geneva, invited lecture "Basic Notions"

Aug. 2021 **ICMP**, *CH*, Geneva, invited plenary talk
IUPAP awardee's talk

Sep. 2021 **GNFM**, *IT*, Ravello Summer School in Mathematical Physics, invited mini-course

Sep. 2021 **DMV-ÖMG 2021**, *DE*, Math. Analyse komplexer Quantensysteme, invited talk

Nov. 2021 **Munich-Aarhus-Santiago Mathematical Physics Seminar**, *on zoom*, invited talk

Jan.-Jun. 2022 **Newton Institute program**, *Cambridge*, "Frontiers in kinetic theory: connecting microscopic to macroscopic scales", invited talk and invited participant

Mar. 2022 **INdAM intensive period**, *Milan, IT*, Quantum Meeting, invited talk

May 2022 **Institut Mittag-Leffler**, *Sweden*, "The Boltzmann equation: in the trail of Torsten Carleman", invited talk

Jun. 2022 **Porto Ercole Summer School**, *IT*, "Methods and Models of Kinetic Theory", invited mini-course

Jun. 2022 **Münster**, *DE*, "Quantum many body system and interacting particles: in honour of Herbert Spohn", invited talk

Jun. 2022 **International Association of Mathematical Physics**, *online*, One world mathematical physics seminar, invited talk

Sep. 2022 **MFO workshop**, *DE*, "Large Scale Stochastic Dynamics"

Oct. 2022 **University of Texas at Austin**, *USA*, visiting professor and invited talk

Dec. 2022 **University of Roma La Sapienza**, *IT*, invited talk

Jan. 2023 **Center for Advanced Studies LMU München**, *DE*, invited talk

Jan. 2023 **Milan**, *IT*, invited graduate course

Feb. 2023 **King's College Cambridge**, *UK*, "MAFRAN days", invited talk

Mar. 2023 **GSSI**, *IT*, invited mini-course

May 2023 **Geneva**, *CH*, Differential equations of mathematical physics, research highlights, invited talk

Jun. 2023 **UZH**, *CH*, "Analysis and Hamiltonian PDEs, a conference in memoriam of Thomas Kappeler", invited talk

Jun. 2023 **University of Pisa**, *IT*, colloquium

Jun. 2023 **HCM Bonn**, *DE*, "Statistical and quantum mechanics", invited talk

Jul. 2023 **IC London**, *UK*, "Mean field limits for interacting particle systems: uniform propagation of chaos, phase transitions and applications", invited talk

Aug. 2023 **Warsaw**, *PL*, "Summer School Series on Current Topics on Mathematical Physics", invited mini-course

Sep. 2023 **MFO Oberwolfach**, *DE*, "Classical and Quantum Mechanical Models of Many-Particle Systems"

Sep.2023 **Les Diablerets**, *CH*, "SwissMAP General Meeting", Colloquium

Sep. 2023 **MFO Oberwolfach**, *DE*, "Many-Body Quantum Systems"

Sep. 2023 **University of Torino**, *IT*, "Lezioni Lagrangiane", Colloquium

Oct. 2023 **Pisa**, *IT*, "Calculus of Variations and Free Boundary Problems VI", invited talk (canceled)

Oct.-Dec. 2023 **KITP Santa Barbara**, *USA*, "Program on Out-of-equilibrium Dynamics and Quantum Information of Many-body Systems with Long-range Interactions", invited participant and invited speaker

Upcoming

Nov. 2023 **Lisbon**, *PT*, "Particle systems and PDEs XI", invited talk

Dec. 2023 **ENS Paris**, *FR*, invited mini-course

Jan. 2024 **Pisa**, *IT*, invited graduate course

Jan. 2024 **Warwick**, *UK*, invited Colloquium

Jan. 2024 **Warwick**, *UK*, invited statistical mechanics talk

Apr. 2024 **Seul**, *DPRK*, "Frontiers in Analysis and Mathematical Physics", invited talk

Sep. 2024 **Trieste**, *IT*, "Particle systems and PDEs XII", invited mini-course

Jun. 2024 **Les Diablerets**, *CH*, "Gravitational physics and its mathematical analysis", invited talk

Jun. 2024 **MSRI Berkley**, *USA*, "Particle interactive systems: Analysis and computational methods", mini-course

Jun. 2025 **Torino**, *IT*, invited mini-course

Aug. - Dec. 2025 **MSRI Berkley**, *USA*, visiting professor

Aug. 2026 **Les Houches**, *FR*, "Quantum systems at all scales", invited mini-course

Outreach

Apr. 2021 **Outreach lecture**, *at the Studentinnenhaus Sonneg in Zurich*, "The arrow of time"

May 2021 **Participation to the SNF NCCR Women campaign**
invited video within the NCCR SwissMAP

Jun. 2021 **Interview for the SwissMAP Perspective Journal**, *Issue 6*
https://www.nccr-swissmap.ch/application/files/2816/2245/7588/Perspectives_2021_Lt.pdf

Sep. 2021 **Interview for MaddMaths**
https://maddmaths.simai.eu/persone/intervista-con-chiara-saffirio/

May 2023 **Article for UNI NOVA**
Research Magazine of the University of Basel. https://www.unibas.ch/de/Aktuell/Uni-Nova/Uni-Nova-141/Uni-Nova-141-Mein-Buch.html

Languages

Italian Mothertongue

English Fluent

French Fluent

German Basic

References

Prof. Eric Carlen **Rutgers University**, *Piscataway NJ*, carlen@math.rutgers.edu
632 Hill Center Department of Mathematics Rutgers University
110 Frelinghuysen Rd., Piscataway NJ 08854-8019, USA

Prof. Laurent Desvillettes **Université Paris Diderot**, *Paris*, desvillettes@math.univ-paris-diderot.fr
IMJ-PRG Bâtiment Sophie Germain,
8 Place Aurélie Nemours, 75013 Paris, France

Prof. François Golse **Ecole Polytechnique**, *Palaiseau*, golse@math.polytechnique.fr
Centre de mathématiques Laurent Schwartz
91128 Palaiseau Cedex, France

Prof. Mario Pulvirenti **La Sapienza Università di Roma**, *Roma*, pulvirenti@mat.uniroma1.it
Dipartimento di Matematica, Università di Roma La Sapienza
P.le A. Moro 2, 00185 Roma, Italy

Prof. Benjamin Schlein **Universität Zürich**, *Zürich*, benjamin.schlein@math.uzh.ch
Institut für Mathematik Universität Zürich
Winterthurerstrasse 190 CH-8057 Zürich, Switzerland
Prof. Herbert Spohn **Technische Universität München**, *Munich*, spohn@tum.de
Technische Universität München
85748 Garching b. München, Boltzmannstr. 3, Germany