

Curriculum Vitæ

Marc Geiller

Chargé de Recherche, section 5, collège B1

Laboratoire de Physique, UMR 5672

Ecole Normale Supérieure de Lyon

46, allée d'Italie, 69007 Lyon

Positions held and education

- **Faculty.** Chargé de recherche CNRS, ENS de Lyon, Laboratoire de Physique (since 2018).
- **Postdoc.** Perimeter Institute for Theoretical Physics (2015 – 2018).
- **Postdoc.** Institute for Gravitation & the Cosmos, Penn State University (2013 – 2015).
- **PhD in Theoretical Physics.** Laboratoire APC, Université Paris 7 (2009 – 2012).
- **Master's degree in Theoretical Physics.** École Normale Supérieure de Lyon (2009).

Research interests

- General relativity: black holes, cosmology, gravitational waves, modified gravity, 3d gravity
- Quantum gravity, quantum field theory, holography, topological quantum field theories

Scientific activity

- Communications per year: ~ 3 international plenary talks, ~ 5 invited seminars, ~ 5 research talks
- Citations: ~ 1900 , $h = 26$ (INSPIRE), ~ 2000 , $h = 27$ (Google Scholar)
- List of publications available on INSPIRE

Supervision

- **1 postdoc:** Sucheta Majumdar (2021 – 2022)
- **2 PhD students:** Antoine Vincenti (2024 –), Francesco Sartini (2019 – 2022)
- **6 undergraduate students:** Maria-Myrto Pegioudi (2025), Antoine Vincenti (2024), Giovanni Faraci (2023), Ketya Portela (2023), Francesco Sartini (2019), Puttarak Jai-akson (2018)

Academic and administrative responsibilities

- **5 participations as PhD thesis jury member.**
- **Expert reviewer for 3 international scientific funding agencies:** FNRS (Belgium), NSERC (Canada), FONDECYT (Chile)
- **Referee** for Physical Review Letters, Journal of High Energy Physics, Classical and Quantum Gravity, International Journal of Modern Physics, General Relativity and Gravitation, Annals of Physics, Advances in Mathematical Physics, Physics Letters B, Mathematical Reviews, SciPost.
- **Current “correspondant communication”,** Laboratoire de Physique, ENS de Lyon.
- **Current member of “conseil de laboratoire”,** Laboratoire de Physique, ENS de Lyon.
- **Current member of the organizing committee of the TUG (Théorie, Univers, et Gravitation) workshops.**

Conferences as invited speaker

- From Asymptotic Symmetries to Flat Holography. GGI, Florence, Italy (upcoming, 06/2025)
- LOOPS’24. Florida Atlantic University, USA (05/2024).
- Carrollian Physics and Holography. ESI, Vienna, Austria (04/2024).
- 11th Tux Workshop on Quantum Gravity. Tux, Austria (02/2024).
- 3rd Carroll Workshop. Thessaloniki, Greece (10/2023).
- Quantum Gravity at RRI. Raman Research Institute, Bengaluru, India (09/2023).
- Journées Relativistes de Tours. Tours, France (05/2023).
- NordGrav Iquique. ICEN, Iquique, Chile (01/2023).
- Quantum Gravity Around the Corner. Perimeter Institute, Canada (10/2022).
- Online Workshop “Physics at Boundaries”. BIMS China (03/2022).
- Workshop “Théorie, Univers et Gravitation”. IHP Paris (12/2021).
- Solvay Workshop on The asymptotic structure of spacetime. ULB Brussels, Belgium (11/2020).
- LOOPS’19. Penn State University, USA (06/2019).
- QuIST IV Conference. Huangshan, China (07/2018).
- Recent Trends in String Theory and Related Topics. IPM, Tehran, Iran (05/2018).
- LOOPS’17. Warsaw, Poland (07/2017).
- Quantum Gravity in Paris. IHP, Paris, France (03/2017).
- Making Quantum Gravity Computable. Perimeter Institute, Canada (06/2017).
- Bounce Scenarios in Cosmology. Perimeter Institute, Canada (06/2017).
- Workshop on Quantum Groups in Quantum Gravity. University of Waterloo, Canada (04/2016).
- Condensed Matter Physics and Topological Field Theory. Perimeter Institute, Canada (10/2015).
- Renormalization in Background Independent Theories. Perimeter Institute, Canada (10/2015).
- LOOPS’15. FAU Erlangen, Germany (07/2015).
- General Relativity and Gravitation: A Centennial Perspective. Penn State University, USA (06/2015).
- Third EFI Winter conference on Quantum Gravity. Tux, Austria (02/2015).
- APS Mid-Atlantic Meeting. Penn State University, USA (10/2014).
- Renormalization Group Approaches to Quantum Gravity. Perimeter Institute, Canada (05/2014).
- Second EFI Winter conference on Quantum Gravity. Tux, Austria (02/2014).

Teaching activities

- **General Relativity.** 18h, M2 Sciences de la Matière, ENS de Lyon (Fall 2022, 2023).
- **Noether’s theorems and gauge theories.** Symmetry Grad Winter School, Perimeter Institute (01/2023).
- **Symmetries and Charges in General Relativity.** 5h, Quantum Gravity Summer School (06/2021).
- Tutor for **Path Integrals and Applications.** M2 Sciences de la Matière, ENS de Lyon (Fall 2019, 2020, 2021).
- **Classical Mechanics.** 40h, African Institute for Mathematical Sciences (AIMS) Rwanda (Fall 2021).

Outreach activities

- Popular science article for *La Recherche*, on black holes in quantum gravity, (to appear 04/2025).
- “Une histoire de la lumière, de l’optique à la relativité et la mécanique quantique”, popular talk at Lycée Léonard de Vinci, Monistrol-sur-Loire (03/2024).
- “Vérités, raison, et relativisme”, popular talk at Lycée Léonard de Vinci, Monistrol-sur-Loire (03/2024).
- Conference on “General relativity and cosmology”. AIMS Rwanda (11/2021).