Pascal MILLET

Maître de conférences

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Positions

Sept. 2024 – **Maître de conférences**, *LAGA*, Université Sorbonne Paris Nord todav

Oct. 2023
– **Postdoc**, FMJH Fellowship, Ecole Polytechnique (CMLS) Aug. 2024

Education

2020 – 2023 Ph.D., Institut Fourier, Université Grenoble Alpes

2020 ENS Diploma, Ecole Normale Supérieure of Paris (Ulm)

2018 – 2019 Master in Mathematics (2nd year), Paris-Sud University/ENS (Ulm) Master "Arithmetic, analysis and geometry"

2017 – 2018 Master student in Mathematics (1st year), Ecole Normale Supérieure of Paris (Ulm)

2017 Bachelor in Mathematics, Ecole Normale Supérieure of Paris (Ulm)

2014 – 2016 **Preparatory course 'MPSI/MP'**, Lycée Sainte-Geneviève (Versailles)

Two-year intensive course in mathematics and physics preparing for the competitive entrance examinations to the ENS / 'Grandes Ecoles' (highly-selective graduate schools)

2014 French Baccalauréat

Scientific section

Ph.D. thesis

Title: The Teukolsky equation on subextremal Kerr spacetimes

Advisor: Dietrich Häfner

Referees: Peter Hintz, Cécile Huneau

<u>Jury:</u> Olivier Graf, Dietrich Häfner, Cécile Huneau, Alain Joye, Jean-Philippe Nicolas, Jérémie Szeftel,

Michał Wrochna

Research Interests

Mathematical general relativity, Lorentzian geometry, partial differential equations on manifolds, spectral theory, microlocal and semiclassical analysis.

Conference and seminar talks

June 2024 Gravitational Physics and its mathematical analysis, Les Diablerets

April 2024 Quantum and classical fields interacting with geometry, IHP, Paris

April 2024 Seminar Topics in general relativity, Universität Münster

February 2024 Recent advances in black holes mathematics in Grenoble, Institut Fourier, Grenoble

January 2024 Sanya waves conference, TSIMF, Sanya

December 2023 Séminaire Laurent Schwartz, CMLS-IHES, Palaiseau

November **Séminaire EDP**, *IRMAR*, Rennes

2023

July 2023 Thematic program: Spectral Theory and Mathematical Relativity, ESI, Vienna

May 2023 Seminar on mathematical General relativity, BIMSA, Beijing

May 2023 Central European Relativity Seminar, Stockholm

- March 2023 Séminaire de relativité générale, laboratoire Jacques-Louis-Lions, Paris
- March 2023 **Séminaire d'analyse et EDP**, Cergy Paris Université, Cergy
- January 2023 Séminaire de physique mathématique, Institut Fourier, Grenoble
 - May 2022 Seminar of the Ph.D students, IMB, Dijon
- October 2021 Ph.D days, Institut Fourier, Grenoble

Publications

- 2024 Pascal Millet, "Geometric background for the Teukolsky equation revisited.", Rev. Math. Phys.
- 2021 Pascal Millet, "The Goursat problem at the horizons for the Klein-Gordon equation on the De Sitter-Kerr metric.", J. Hyperbolic Differential Equations
- 2020 Jérôme Gilleron, Thierry Goudon, Frédéric Lagoutière, Hugo Martin, Benjamin Mauroy, Pascal Millet, Magali Ribot and Cristina Vaghi, "Modeling and analysis of adipocytes dynamic with a differentiation process.", ESAIM: Proceedings and Surveys

Preprints

2023 Pascal Millet, "Optimal decay for solutions of the Teukolsky equation on the Kerr metric for the full subextremal range |a| < M", https://arxiv.org/pdf/2302.06946.pdf, [Manuscript submitted for publication]

Conference proceedings

2024 Pascal Millet, Leading-order term expansion for the Teukolsky equation on subextremal Kerr black holes, Séminaire Laurent Schwartz - EDP et applications, Exposé n°7