Sabine Harribey

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Education

2018–2022 **PhD thesis, Renormalization in tensor field theories and the melonic fixed point**,
CPHT, École Polytechnique and ITP, Heidelberg University,
Supervised by Razvan Gurau, Dario Benedetti and Christoph Kopper.

2017–2018 **Master's degree in Physics**, *École Normale Supérieure de Lyon & Université Lyon 1*,
2nd year, theoretical course, *with highest honors (17.2/20)*.

2016–2017 **Master's degree in Physics**, *École Normale Supérieure de Lyon & Université Lyon 1*,
1st year, *with highest honors, ranked second (18/20)*.

2015–2016 **Bachelor's degree in Physics**, *École Normale Supérieure de Lyon & Université Lyon 1*, *with highest honors, ranked second (18.3/20)*.

2015 **Admitted to École Normale Supérieure de Lyon through the nation-wide competitive entrance exam**.

2013–2015 **Classes préparatoires (two-year university-level preparation for the competitive entrance exams to French "Grandes écoles")**, *Lycée Henri IV*, Paris,
Major in Mathematics and Physics, minor in Computer sciences.

2012–2013 **High School Diploma (Baccalauréat)**, *Lycée Michel Montaigne*, Bordeaux,
Sciences major, Mathematics speciality, *with highest honors*.

Research internships

2018 **Institut de Physique Nucléaire de Lyon**, *Four-point function at one-loop order in bosonic string theory*, Supervised by Dimitrios Tsimpis.

2017 **Perimeter Institute**, *SYK model and Gurau-Witten tensor models*, Supervised by Sylvain Carrozza.

2016 **Institut d'Astrophysique de Paris**, *Automatic identification of QSO* , Supervised by Patrick Petitjean.

Refereed publications and preprints

2021 **S. Harribey**, *Sextic tensor model in rank 3 at next-to-leading-order*, arXiv :2109.08034.

2021 **S. Carrozza, S. Harribey**, *Melonic large N limit of 5-index irreducible random tensors*, arXiv :2104.03665.

2020 **D. Benedetti, R. Gurau, S. Harribey**, *The tri-fundamental quartic model*, Phys. Rev. D 103, 046018 (2021), arXiv :2011.11276.

2020 **D. Benedetti, R. Gurau, S. Harribey, K. Suzuki**, *Long-range multi-scalar models at three loops*, J.Phys.A 53 (2020) 44,445008, arXiv :2007.04603.

2019 **D. Benedetti, N. Delporte, S. Harribey, R. Sinha**, *Sextic tensor field theories in rank* 3 *and* 5, Journal of High Energy Physics, 2020(6), 65, arXiv :1912.06641.

2019 **D. Benedetti, R. Gurau, S. Harribey, K. Suzuki**, *Hints of unitarity at large* N *in the* $O(N)^3$ *tensor field theory*, Journal of High Energy Physics, 2020(2), 72, arXiv :1909.07767.

2019 **D. Benedetti, R. Gurau, S. Harribey**, *Line of fixed points in a bosonic tensor model*, Journal of High Energy Physics, 2019(6), 53, arXiv :1903.03578.

2018 **S. Harribey, D. Tsimpis**, *One-loop bosonic string and de Sitter space*, Nuclear Physics B, 114768, arXiv :1810.02236.

Conference presentations and invited seminars

2021 **Tensor Journal club**, *May 5, online*, talk titled *A quick review of melonic CFTs*.

2021 **Tensor Journal club**, *April 21, online*, talk titled *Tri-fundamental quartic model*.

2021 **Women at the intersection of Mathematics and theoretical Physics**, *February 22-25, Perimeter Institute, Waterloo, Canada*, online talk titled *Renormalization in tensor field theories and the melonic fixed point*, Presentation of a poster *What's going on with tensor models ?*.

2020 **Exact Renormalization Group 2020**, *November 2-6, Yukawa Institute for Theoretical Physics, Kyoto University*, online talk titled *Long-range multi-scalar models at three loops*.

2020 **Tensor Journal club**, *October 21, online*, talk titled *Long-range multi-scalar models at three loops*.

2019 **Quantum Gravity in Bordeaux**, *October 15-17, LaBri, Bordeaux*, talk titled *Line of fixed points in a bosonic tensor model*.

2019 **3rd French-Russian conference on random geometry and physics**, *June 3-7, Steklov Mathematical Institute, Moscow*, talk titled *Line of fixed points in a bosonic tensor model*.

2019 **Quantum gravity seminar**, *May 16th, Perimeter Institute, Waterloo, Canada*, talk titled *Line of fixed points in a bosonic tensor model*.

2018 **Workshop ModTens**, *December 19-21, LaBri, Bordeaux*, talk titled *Conformal tensor models*.

2018 **Mini-Symposium on Holographic Tensors**, *October 31st-November 2nd, OIST, Okinawa*, talk titled *Adding bosons to an SYK-like tensor model*.

Teaching Experience

2020 **Teaching assistant**, *Polytech Paris-Saclay*, First year, first semester, undergraduate Mathematics course.

2019–2020 **Teaching assistant**, *Polytech Paris-Saclay*, First year, second semester, undergraduate Mathematics course.

2018–2019 **Tutorials in Physics**, *Private lessons with a student in Classes préparatoires*.

2015–2017 **Tutorials in Mathematics and Physics**, *Association ENSeigner*, Lyon,
Two-hour sessions to help high-school students do their homework and prepare for exams.

Scholarships

2015–2019   **Four-year scholarship**, *École Normale Supérieure de Lyon*, "junior civil servant" status.

Languages

French   Native speaker

English   Fluent, C2 level (202/210 at the CAE Exam)

Computer skills

Operating systems   Proficient user of Microsoft Windows, Mac OS and working knowledge of Linux

Scientific softwares   Proficient user of Python and Mathematica, working knowledge of Matlab and Caml

Typesetting   Proficient user of LaTeX