Lucien Hennecart

Contact details

School of Mathematics
James Clerk Maxwell Building
The University of Edinburgh
Peter Guthrie Tait Road
King's Buildings
Edinburgh
EH9 3FD

Citizenship: French

Email: Firstname.Name@ed.ac.uk
Webpage: https://www.maths.ed.ac.uk/~lhenneca/

Work experience

The University of Edinburgh — Edinburgh
Postdoctoral Research Assistant. Supervisor: Ben Davison — *September 2021 –*

Education

Université Paris-Saclay, Département de Mathématiques d'Orsay — Orsay
PhD in Mathematics. Advisor: Olivier Schiffmann — *September 2018 – September 2021*

Université Paris-Saclay, Département de Mathématiques d'Orsay — Orsay
M.Sc. in Fundamental Mathematics, with high honors — *2017 – 2018*

Agrégation de Mathématiques
French diploma for higher education teaching — *July 2017*

Université Rennes 1 and École Normale Supérieure de Rennes — Rennes and Bruz
First year of M.Sc. in Fundamental Mathematics, with high honors — *2015 – 2016*

Université Rennes 1 and École Normale Supérieure de Rennes — Rennes and Bruz
B.Sc. in Physics — *2014 – 2016*

Université Rennes 1 and École Normale Supérieure de Rennes — Rennes and Bruz
B.Sc. in Fundamental Mathematics, with high honors — *2014 – 2015*

Recruited as a trainee civil servant at the École normale supérieure de Rennes
Competitive exam following the "Classes préparatoires" — *2014*

Lycée Claude Fauriel — Saint-Étienne
Classes préparatoires aux grandes écoles — *2012 – 2014*
Two-year intensive program in preparation for the national "Grandes Écoles" competitive exams

Publications and Preprints

Perverse sheaves with nilpotent singular support on the stack of coherent sheaves on an elliptic curve, January 2021, preprint: arXiv:2101.03813, submitted to *Transformation Groups*

Microlocal characterization of Lusztig sheaves for affine and g-loops quivers, June 2020, preprint: arXiv:2006.12780, submitted to *Representation Theory*, revisions submitted in September 2021

Asymptotic behaviour of Kac polynomials, *Experimental Mathematics*, July 2021 arXiv:2003.06929

Isotropic cuspidal functions in the Hall algebra of a quiver, *Int. Math. Res. Not. IMRN*, August 2019 (online version), arXiv:1903.04378

Talks

Hodge Club
Hall algebras — *29 October 2021*

Séminaire d'algèbre
(Canonical) bases of the elliptic Hall algebra — *25 October 2021*

Hodge seminar
Polynomiality of the number of representations of the modular group — *7 October 2021*

Italian Representation Theory Seminar
Perverse sheaves with nilpotent singular support for curves and quivers — *11 June 2021*

Séminaire de la Tortue, Genève
The degree zero BPS Lie algebra of a curve — *3 June 2021*

Oberseminar Lie Theory Bochum
Cuspidal functions and Lusztig sheaves for affine quivers — *17 Mai 2021*

Réga
Algèbres de Hall — *7 April 2021*

PhD students Day, Laboratoire de Mathématiques d'Orsay
Caractérisation microlocale des faisceaux de Lusztig pour les carquois affines — *15 September 2020*

Thematic trimester program on Representation theory, IHP, Seminar Young researchers
Microlocal characterization of Lusztig sheaves for extended Dynkin quivers — *19 February 2020*

PhD student seminar, Laboratoire de Mathématiques d'Orsay
Polynômes de Kac d'un carquois — *22 January 2020*

Séminaire quantique de Strasbourg
Les fonctions cuspidales sur le champ de représentations d'un carquois — *16 October 2019*

Undergraduate research experience

Laboratoire de Mathématiques d'Orsay — Orsay
Subject: Structure of the Hall algebra of a quiver. Supervisor: Olivier Schiffmann — *February – August 2018*

Institut Camille Jordan — Lyon
Subject: Topology of real algebraic varieties. Supervisor: Jean-Yves Welschinger — *Mai – June 2016*

Mathematisches Institut of Göttingen — Göttingen
Subject: Binary quadratic forms, the circle method and Waring's problem. Supervisor: Jörg Brüdern — *June – July 2015*

Teaching experience

2021–2022

- First semester: Reading course on Lie algebras for two fifth year students (organized with Iain Gordon). One-hour weekly meetings.

2020–2021

- First semester: Exercise class "Algebra" for first year students, 36 hours
- Exercise class "Introduction to Lie algebras" in the master program AAG (Analyse, Arithmétique, Géométrie) (5-th year students), 12 hours

2019–2020

- Mentoring of two Italian students laureate of an award of the FMJH (Fondation mathématique Jacques Hadamard) to attend the AAG (Analyse, Arithmétique, Géométrie) master program at Orsay
- First semester: Exercise class "Calculus" for first year students, 48 hours
- Second semester: Exercise class "Iterative methods in linear algebra" for third year students, 30 hours

2018–2019

- First semester: Exercise class "Calculus" for first year students, 16 hours
- Second semester: Exercise class "Linear algebra" for first year students, 48 hours

2017–2018

- Oral exams of mathematics, Lycée Blaise Pascal (Orsay). 2 hours per week, 50 hours altogether

Service

Reviewer for Zentralblatt, Mathscinet.
Reviewer for the Journal of Algebra

Languages

French: Native speaker
English: Good skills. Toeic: 815/990 (2016); IELTS: Overall Band Score: 7.5 (2021)
German: Level: C1 (Deutsches Sprachdiplom des Kultusministerkonferenz, 2012).
Russian: Level: beginner

Miscellaneous

I have played the Cello for 18 years. I played in many different orchesters for students over the years, participated to master-classes given by some of the famoust French or Italian cellists (Emmanuelle Bertrand, Xavier Gagnepain, Jean Deplace, Xavier Phillips, Claudio Pasceri). Cellist at the Edinburgh University Symphony Orchestra from 2021.