Olivier Haution

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Personal information

Address	Steinerweg 1a, 81241 Munich, Germany.
Family status	Married, 2 children (born 2017, 2019).
Languages	French, English, German.

Appointments

04/2020—03/2021	Interim professor (W2), LMU München.
10/2018—	Heisenberg fellow, LMU München.
10/2012—09/2018	Assistant (Akademischer Rat auf Zeit), LMU München.
09/2010—09/2012	Research fellow, University of Nottingham.
09/2009—08/2010	Temporary lecturer (ATER à temps complet), Université Paris 6.
09/2006—08/2009	Teaching assistant (Allocataire–Moniteur), Université Paris 6.
09/2005—08/2006	Tutor, École Polytechnique.

Education

2016	Habilitation, Mathematics, LMU München (obtained Jan. 18, 2016), "Integrality properties of algebraic cycles".
2006—2010	Ph.D., Mathematics, Université Paris 6 (obtained Feb. 9, 2010), "Steenrod operations and quadratic forms" (advisor: Nikita Karpenko).
2005—2006	Master, Mathematics, École Polytechnique.
2002—2005	Engineering program, École Polytechnique.
2000—2002	Classes préparatoires, Lycée la Martinière Montplaisir, Lyon.

Awards, Grants

2020 – 2022	DFG individual research grant "Intersection theory and cobordism with a quadratic twist" (sole PI), supporting one postdoctoral researcher.
2018 –	DFG Heisenberg fellowship.
2016–2019	DFG individual research grant "New perspectives for canonical dimension" (sole PI).
2006–2009	Ph.D. scholarship "AMX" funded by the French Ministry of Research.
2005	"Prix d'option" awarded by the Ecole Polytechnique for an internship at the Tata Institute of Fundamental Research, Mumbai.

Research interests

Algebraic cycles, motives, K-theory, algebraic cobordism, finite group actions on varieties.

Publications

- O. Haution, On the structure of the algebraic cobordism ring of involutions, arXiv:2008.11534.
- J. Fasel and O. Haution, The stable Adams operations on Hermitian K-theory, arXiv:2005.08871.
- O. Haution and A. S. Merkurjev, Connective K-theory and Adams operations, arXiv:2001.05882.
- O. Haution, Involutions and Chern numbers of varieties, **Commentarii Mathematici Helvetici**, 95 (2020), no. 4, 811–843.
- O. Haution, Diagonalisable p-groups cannot fix exactly one point on projective varieties, **Journal of Algebraic Geometry**, 29 (2020), 373–402.
- O. Haution, Fixed point theorems involving numerical invariants, **Compositio Mathematica**, 155 (2019), no. 2, 260–288.
- O. Haution, On rational fixed points of finite group actions on the affine space, **Transactions of the American Mathematical Society**, 369 (2017), 8277–8290.
- O. Haution, Involutions of varieties and Rost's degree formula, **Journal für die reine und angewandte Mathematik (Crelle)**, 745 (2018), 231–252.
- O. Haution, Detection by regular schemes in degree two, **Algebraic Geometry**, 2 (2015), no. 1, 44–61.
- O. Haution, Invariants of upper motives, **Documenta Mathematica**, 18 (2013), 1555–1572.
- O. Haution, Duality and the topological filtration, **Mathematische Annalen**, 357 (2013), no. 4, 1425–1454.
- O. Haution, Integrality of the Chern character in small codimension, **Advances in Mathematics**, 231 (2012), no. 2, 855–878.
- O. Haution, Degree formula for the Euler characteristic, **Proceedings of the American Mathematical Society**, 141 (2013), no. 6, 1863-1869.
- O. Haution, Reduced Steenrod operations and resolution of singularities, **Journal of K-theory**, 9 (2012), no. 2, 269–290.
- O. Haution, On the first Steenrod square for Chow groups, **American Journal of Mathematics**, 135 (2013), no. 1, 53–63.
- O. Haution, Lifting of coefficients for Chow motives of quadrics, in Quadratic forms, linear algebraic groups, and cohomology, volume 18 of **Developments in Mathematics**, 239-247, Springer, New York (2010).

Conference talks

- Workshop on birational geometry, Nov. 2020, Higher School of Economics Moscow (online).
- Workshop "Affine Algebraic Groups, Motives and Cohomological Invariants", Sept. 2018, Banff International Research Station.
- Workshop on motivic and equivariant homotopy theory, Oct. 2017, Osnabrück.
- International Conference in K-theory, Aug. 2016, Sydney.
- Workshop "Algebraic Cobordism and Projective Homogeneous Varieties", Feb. 2016, Mathematisches Forschungsinstitut Oberwolfach.
- Workshop "The Use of Linear Algebraic Groups in Geometry and Number Theory", Sept. 2015, Banff International Research Station.
- Conference "(A)round forms, cycles and motives", Sept. 2014, Mainz.
- Workshop "Projective modules and A1-homotopy theory", May 2014, American Institute of Mathematics, Palo Alto.
- Workshop "Étale and motivic homotopy theory", Mar. 2014, Heidelberg.
- Spring school and workshop on "Torsors, Motives and Cohomological Invariants", May 2013, Field Institute, Toronto.
- Workshop "Lie Algebras, Torsors and Cohomological Invariants", Oct. 2012, Banff International Research Station.
- Joint Mathematics Meetings AMS Special Session "Linear Algebraic Groups: Their Arithmetic, Geometry, and Representations", Jan. 2012, Boston.
- Conference "Ramification in Algebra and Geometry at Emory", May 2011, Atlanta.
- Mini-course "Torsors and Geometry of Quadrics", June 2009, Lens.

Supervision

- One postdoctoral researcher : Fabio Tanania (2 years, since Mar. 2020).
- One Bachelor's thesis "Nonsolvability of degree 5 equations" (2016).

Teaching

2020–2021	Lectures and exercises : Brauer groups of fields. Reading course : étale cohomology.
2019–2020	Lectures and exercises : Galois cohomology. Student seminar : number theory for future teachers (2 groups).
2018–2019	Student seminar : topological data analysis.
2017—2018	Exercises : linear algebra I. Lectures and exercises : intersection theory.
2016—2017	Exercises : algebraic geometry I and II. Lectures and exercises : homological methods in commutative algebra.
2015—2016	Exercises : algebra, linear algebra II. Student seminar : quadratic forms and arithmetic.
2014—2015	Lectures and exercises : intersection theory. Exercises : algebraic geometry I and II. Student seminar : Brauer groups and Galois cohomology.
2013—2014	Lectures and exercises : local algebra. Exercises : linear algebra II. Student seminar: quadratic forms (with Roland Lötscher).
2012—2013	Exercises : linear algebra I and II. Student seminars : introduction to motivic cohomology and motives (with Fabien Morel), introduction to arithmetic.
2009—2010	Tutorials, 160 hours (vector spaces, arithmetic).
2006—2009	Tutorials, 3x64 hours (linear algebra, quadratic forms and geometry, arithmetic).
2005—2006	Individual tutoring, 60 hours (distributions, dynamical systems).

Date: February 5, 2021