

# Jérémy Guéré

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## Academic Employment

- 2017–present **Associate Professor (Maitre de Conférence)**, *Grenoble Alpes University*, Grenoble, France.
- 2015–2017 **Postdoctoral position**, *Humboldt Universität*, Berlin.  
Funded by the Einstein Foundation, in the groups of Gavril Farkas and of Rahul Pandharipande (ETH Zürich)

## Education

- 2011–2014 **PhD Thesis**, *Université Paris VI, Institut Mathématiques de Jussieu*, Paris.  
PhD thesis in Algebraic Geometry, under the supervision of Alessandro Chiodo (IMJ).  
Defense in June 2015. Referees : S. Boissière and A. Polishchuk.  
Other comitee members : L. Manivel, C. Voisin, and D. Zvonkine.  
Title : Quantum singularity theory, mirror symmetry, and integrable hierarchies.
- 2007–2012 **Diplôme de l'École Normale Supérieure**, Paris.  
Main specialty in Mathematics and second specialty in Physics.
- 2010–2011 **Master 2 in Fundamental Mathematics**, *Université Paris VI*, Paris.  
Obtained with highest honor (Très Bien).
- July 2009 **Admitted to the Agrégation of Mathematics**.  
French highest examination for teaching up to Bachelor degree.
- July 2007 **Admitted to the École Normale Supérieure de Paris**.

## Papers

- Sept. 2020 **Congruences on K-theoretic Gromov–Witten invariants**.  
eprint [arXiv:2009.08485](https://arxiv.org/abs/2009.08485)
- Sept. 2019 **Hodge–Gromov–Witten theory**.  
eprint [arXiv:1908.11409](https://arxiv.org/abs/1908.11409)
- June 2019 **Equivariant Landau–Ginzburg mirror symmetry**.  
eprint [arXiv:1906.04100](https://arxiv.org/abs/1906.04100)
- May 2018 **Fundamental Factorization of a GLSM, Part I : Construction (with I. Ciocan-Fontanine, D. Favero, B. Kim, and M. Shoemaker)**, *accepted in Memoirs of the AMS*.  
eprint [arXiv:1802.05247](https://arxiv.org/abs/1802.05247)
- May 2017 **DR/DZ equivalence conjecture and tautological relations (with A. Buryak and P. Rossi)**, *accepted in Geometry and Topology*.  
eprint [arXiv:1705.03287](https://arxiv.org/abs/1705.03287)

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- Sept. 2016 **Integrable systems of double ramification type (with A. Buryak, B. Dubrovin, and P. Rossi)**, *IMRN*.  
eprint [arXiv:1609.04059](https://arxiv.org/abs/1609.04059)
- March 2016 **A generalization of the double ramification cycle via log-geometry**.  
eprint [arXiv:1603.09213](https://arxiv.org/abs/1603.09213)
- Febr. 2016 **Tau-structure for the Double Ramification Hierarchies (with A. Buryak, B. Dubrovin, and P. Rossi)**.  
eprint [arXiv:1602.05423](https://arxiv.org/abs/1602.05423), *Communications in Mathematical Physics*, Volume 363, Number 1 (2018), Pages 191-260
- Sept. 2015 **Hodge integrals in FJRW theory**.  
eprint [arXiv:1509.07047](https://arxiv.org/abs/1509.07047), *Michigan Mathematical Journal*, Volume 66, Number 4 (2017), Pages 831-854
- July 2015 **Towards a description of the double ramification hierarchy for Witten's r-spin class (with A. Buryak)**.  
eprint [arXiv:1507.05882](https://arxiv.org/abs/1507.05882), *Journal de Mathématiques Pures et Appliquées*, Volume 106, Issue 5 (2016), Pages 837-865
- July 2013 **A Landau–Ginzburg mirror theorem without concavity**.  
eprint [arXiv:1307.5070](https://arxiv.org/abs/1307.5070), *Duke Mathematical Journal*, Volume 165, Number 13 (2016), Pages 2461-2527

## Teaching

- Sept. – Dec. 2018 **lecture for first-year bachelor students in maths/info**, *Grenoble University*.
- Jan. – May 2018 **exercise sessions for third-year bachelor students in maths on integrals and probabilities**, *Grenoble University*.
- Sept. – Dec. 2017 **lecture for first-year bachelor students in maths/info**, *Grenoble University*.
- April–July 2017 **Advanced course for graduate students**, *Humboldt University*, Berlin.  
Enumerative theory of complex curves.
- January 2016 **Series of lectures**, *KIAS*, Seoul.  
Six hours of lectures on matrix factorizations and on the quantum singularity theory.
- June 2015 **Assistant professor at Pragmatic summer school**, *University of Catania*, Italy.
- 2014 **Exercise sessions for the course "Multi-variable calculus" for Bachelor**, *Université Paris VI*, Paris.
- 2012–2014 **Exercise sessions for the courses "Calculus" and "Linear Algebra" for Bachelor**, *Université Paris VI*, Paris.

## Activities

- 2018– **Member of the Catag ANR project**.
- 2018– **Organizer of the algebra and geometry seminar**, *Fourier Institute*, Grenoble.
- 2015–2017 **Co-organizer of the Einstein Stiftung seminar**, *Humboldt Universität*, Berlin.
- 2014–2017 **Member of SISYPH project**.  
SYmétrie miroir et SIngularités irrégulières provenant de la PHysique.

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2013–2014 **Co-organizer of the seminar RéGA**, *IHP*, Paris.  
Seminar for students in Algebraic Geometry.

## Conference talks

- June 2019 **New Perspectives in Gromov-Witten Theory**, UPMC Paris.  
Dec. 2018 **Catag ANR launching workshop**, Université d'Angers.  
Dec. 2017 **Workshop Mirror Symmetry and Related Subjects**, Kyoto University.  
October 2017 **Conference Open Gromov–Witten invariants**, ETH, Zürich.  
October 2017 **Workshop**, Göteborg, Sweeden.  
Sept. 2017 **Conference Moduli spaces of Curves, Integrable Systems and related subjects**, Dijon, France.  
March 2017 **Workshop Enumerative Geometry**, IHP, Paris.  
January 2017 **Workshop Northern German Algebraic Geometry**, Hamburg.  
June 2016 **Workshop Global Mirror Symmetry**, *Chern Institute of Mathematics*, Tianjin.  
Febr. 2016 **Workshop Moduli spaces of holomorphic differentials**, *Humboldt*, Berlin.  
January 2016 **Workshop Matrix Factorization Days**, *KIAS*, Seoul.  
Nov. 2015 **Annual meeting GAGC**, *CIRM*, Marseille.  
June 2015 **Summer School Pragmatic**, *Catane University, Italy*.  
July 2014 **Summer School in Gromov–Witten Theory**, *Colorado State University*.  
April 2014 **Workshop Mirror Symmetry and Spin Curves**, *Palazzone di Cortona, Italy*.  
Febr. 2014 **Launching Workshop of SISYPH**, *Universität Mannheim*.  
January 2014 **Workshop Quantum cohomology and quantum K-theory**, *Université Paris VII*.

## Languages

French Native Language  
English Fluent  
Spanish Fluent  
German Conversant

## Miscellaneous

Sports Trekking, Diving, Running

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