

Arnab Kundu

PhD Student, 24 years old

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Education

- Sept 2020 – June 2023 **PhD in Mathematics**, 3rd year, Université Paris-Saclay, Orsay, France.
under the supervision of Prof. [Kęstutis Česnavičius](#)
- Sept 2018 – Aug 2020 **Master : Mathématiques Fondamentales**, Sorbonne Université, Paris, France, Score - 18.9/20.
Mention: Très Bien
- Aug 2015 – July 2018 **B.Sc.(Hons.)**, Chennai Mathematical Institute, Chennai, India, CGPA - 9.83.
Mathematics and Computer Science Undergraduate

Visiting Position

- 28 Nov - 2 Dec '22 **Technische Universität Darmstadt**, invited by Timo Richarz.

Publications and Preprints

- Torsors on Valuation Rings**, *Thesis*, in preparation.
- Purity over Valuation Rings**, *in preparation*.
- [arXiv:2110.10120](#) **Tilting Correspondances of Perfectoid rings**, accepted to the *Journal of the Ramanujan Mathematical Society*.

Achievements:

- Received **FSMP** (Fondation Sciences Mathématiques de Paris) PSGM Masters 2018-2020 scholarship.
- Received **Gold Medal** for the best undergraduate academic record of the 2018 batch.
- Attended the Indian **IMO training camp** thrice in 2013, 2014 and 2015 which were held at HBCSE, Mumbai.

Talks

- January 2023 **Algebraic Geometry Seminar**, Purdue, Torsors on Valuation Rings.
- January 2023 **Stacks Seminar**, Essen, Torsors on Valuation Rings.
- January 2023 **Arithmetic and Algebraic Geometry Seminar**, Amsterdam, Torsors on Valuation Rings.
- December 2022 **Arithmetic Geometry Seminar**, Heidelberg, Torsors on Valuation Rings.
- December 2022 **Seminar on Arithmetic Geometry**, Darmstadt, Torsors on Valuation Rings.

- November 2022 **Preprint Seminar**, *Paris*, Torsors on the Complement of a Smooth Divisor.
 November 2022 **Seminar of PhD students**, *Orsay*, Torsors on Smooth Schemes.
 October 2022 **Seminar Mathjeunes**, *Paris*, Torsors on Valuation Rings.
 June 2022 **Seminar SAGA**, *Orsay*, Tilting Correspondences of Perfectoid Rings.
 December 2021 **Seminar RéGA**, *Paris*, Tilting Correspondences of Perfectoid Rings.

Teaching Experience

- Fall 2022, 2021 & 2020 **Mathematics - 1**, *Teacher*, Institut Universitaire de Technologie (IUT), Cachan, France
 Fall 2016 **Analysis 1**, *Teaching Assistant*, Chennai Mathematical Institute(CMI), Chennai, India.
 January 2016 **INMO Training Camp Chennai**, *Instructor*.

Workshops and Conferences

- Summer 2023 **Recent Advances in Algebraic K-Theory**, *IHES*, Bures-sur-Yvette, France.
 Spring 2023 **Non-Archimedean Geometry and Eigenvarieties**, *Universität Heidelberg*, Heidelberg, Germany.
 – **International Workshop on Motives**, *University of Tokyo*, Tokyo, Japan.
 Spring 2022 **Franco-Asian Summer School on Arithmetic Geometry**, *CIRM*, Luminy, France.
 – **Géométrie Algébrique en Liberté (GAeL) XXIX**, *Université Paris-Saclay*, Orsay, France.
 – **Cohomology of Varieties**, *IMPAN*, Warsaw, Poland.
 – **Kleine AG: Weil Conjectures**, *Universität Bonn*, Germany.
 Fall 2019 **Perfectoid Spaces**, *ICTS*, Bangalore, India.
 Summer 2019 **Arithmetic Geometry in Carthage**, *Tunisian Academy Beit al-Heikma*, Carthage, Tunisia.
 Summer 2018 **École Jeunes Chercheurs en Théorie des Nombres 2018**, *Université de Franche-Comté Laboratoire de Mathématiques de Besançon*, Besançon, France.
 Winter 2017 **ATMW Analytic Number Theory**, *ISI*, Kolkata, India.
 Winter 2016 **Theoretical and Computational Aspects of the Birch and Swinnerton-Dyer Conjecture**, *ICTS*, Bangalore, India.

Organisation of Seminar

- 2022- **Seminaire Réseau des étudiants en Géométrie Algébrique (RéGA)**, *Institut Henri Poincaré(IHP)*, Paris, France, [Website](#).

Languages

Bengali (Native), English, French, Hindi

German (Learning)



Computer skills

Programming Python, Haskell, C++, Java

Web design HTML, CSS