# Arnab Kundu

PhD Student, 23 years old

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#### Education

2020-2023 PhD in Mathematics, 2nd year, Université Paris-Saclay, Orsay, France. under the supervision of Prof. Kestutis Česnavičius

2018-2020 Master: Mathématiques fondamentales, Sorbonne Université, Paris, France, Score - 18.9/20. Mention: Très Bien

2015–2018 B.Sc. (Hons.), Chennai Mathematical Institute, Chennai, India, CGPA - 9.83. Mathematics and Computer Science Undergraduate

### Preprints:

arXiv:2110.10120 Tilting Correspondances of Perfectoid rings, Submitted. Purity over Valuation Rings, in Preparation.

#### Achievements:

- Recieved FSMP(Fondation Sciences Mathématiques de Paris) PSGM Masters 2018-2020 scholarship
- o Recieved Gold Medal for the best undergraduate academic record of the 2018 batch
- o Attended the Indian IMO training camp thrice in 2013, 2014 and 2015 which were held at HBCSE, Mumbai
- o KVPY(Kishore Vaigyanik Protsahan Yojana) SA 2013 scholar.

#### Talks

December 2021 **Seminar RéGA**, Tilting Correspondences of Perfectoid Rings.

February 2022 **Seminar CohoSing**, The Arc Topology.

## Teaching Experience

Fall 2020 Mathematics - 1, Teacher, Institut Universitaire de Technologie (IUT).

and Fall 2021 Cachan, France

Fall 2016 Analysis 1, Teaching Assistant.

January 2016 INMO Training Camp Chennai, Instructor.

Internships

- Spring 2020 **M2 Mémoire**, *Tilting Correspondences for Integral Perfectoid Rings*, under Prof. Kestutis Česnavičius, Université Paris-Saclay, France.
- Spring 2019 **T.E.R.**, *Proper Base Change Theorem in Etale Cohomology*, under Prof. Benoît Stroh, Sorbonne Université, Paris, France.
- Summer 2018 **CMI-ENS Exchange Program**, *Perfectoid Fields*, Under Prof. Ariane Mézard, École Normale Supérieure, Paris, France.
- Summer 2017 **Maths REU**, *The Étale Fundamental Group of an Elliptic Curve*, University of Chicago, Chicago, USA.
- Summer 2016 **Summer Internship**, Vershik Okunkov Approach to Representations of Symmetric Groups, Under Prof. K.N. Raghavan, IMSc, Chennai, India.

## Workshops and Conferences

- Spring 2022 **Franco-Asian Summer School on Arithmetic Geometry**, *Centre International de Rencontres Mathématiques (CIRM)*, Luminy, France.
- Spring 2020 **Arithmetic Algebraic Geometry**, *TU Darmstadt*, Germany, Cancelled due to the Covid-19 outbreak.
  - 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.

#### Languages

Native Bengali

Advanced English

Intermediate French

Conversational Hindi

Absolute beginner German

## Computer skills

Programming Python, Haskell, C++, C, Web design HTML, CSS Java