# Bingyu ZHANG 张秉宇

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## **Research Interests**

I am interested in mathematics from physics, in particular, symplectic geometry/topology and mirror

Now, I am focusing on sheaves techniques in symplectic geometry. In the beginning, we are trying to use sheaves to obtain some results about symplectic geometry of cotangent bundles. Next, we will go beyond the cotangent bundle to general symplectic manifolds.

I am also interested in gauge theory.

#### **Education**

Université Grenoble Alpes **Grenoble**, France

2019-Present Ph.D. student in Pure mathematics

Project: Sheaves Techniques and Symplectic Geometry.

Advisor : Damien Gayet, Stéphane Guillermou, and Claude Viterbo

Université Grenoble Alpes **Grenoble**, France

M2R Fundamental Mathematics 2018-2019 Advisor : Stéphane Guillermou

Academy of Mathematics and Systems Science, CAS

Beijing, China MS in Pure Mathematics 2015-2018

Advisor: Wei-dong RUAN ( 阮卫东 )

**Hunan University** Changsha, Hunan, China

BS in Mathematics 2011-2015

Advisor: Jun LI (李军)

## **Papers**

#### Capacities from the Chiu-Tamarkin complex.

Preprint: arXiv 2103.05143.

#### **Talks**

April 2021: Capacities from the Chiu-Tamarkin complex.

Symplectic Zoominar, CRM-Montréal, Princeton/IAS, Tel Aviv, and Paris (Online)

Nov 2020: What is "larger" in symplectic geometry?

Séminaire compréhensible, l'Institut Fourier, Université Grenoble Alpes

July 2020: Embedding problem from microlocal sheaf theory.

Shanghai Maths Seminar, Tongji University

April 2020: Homotopy equivalence of nearby Lagrangian and sheaf quantization.

Student Seminar on Symplectic Geometry, Princeton University

**May 2017** :  $A_{\infty}$ -relations and Fukaya Categories.

Topics on Non-commutative Geometry, YMSC, Tsinghua University

## **Awards**

2018: IDEX M2 Scholarship of Université Grenoble Alpes.

2015: Excellent New Student Scholarship, AMSS, CAS.

2014 : Shiing-Shen Chern (Geometry and Topology) Silver Award, S.T.Yau College Student Mathematics

Contests.

# **Activities Organized**

May, 2020: Bingyu's Friends - Young Mathematicians Colloquium, online.

Spring, 2017: Student Seminar on K3 Surfaces, AMSS, CAS.

Winter, 2016: Student Seminar on Homological algebra, Sheaves and Stacks, AMSS, CAS.

Spring, 2016: Student Seminar on Gauge Theory, AMSS, CAS.

# **Teaching**

2018 Spring: TA on linear algebra.

University of Chinese Academy of Sciences. Instructor: Prof. Ziming LI (李子明).

2017 Autumn: TA on Calculus A

University of Chinese Academy of Sciences. Instructor: Prof. Wei-dong RUAN (阮卫东).

# Skill

**Cooking**: Intermediate

I would like to be a chef if I don't want to do math anymore.

**Chinese**: Mother tongue **English**: Intermediate

French: Beginner

Maybe nothing