

# Bingyu Zhang 张秉宇

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## Research Interests

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

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

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### Université Grenoble Alpes

*Ph.D. student in Pure mathematics*

Project : Sheaves Techniques and Symplectic Geometry.

Advisor : Damien Gayet, Stéphane Guillermou, and Claude Viterbo

**Grenoble, France**

*2019-Present*

### Université Grenoble Alpes

*M2R Fundamental Mathematics*

Advisor : Stéphane Guillermou

**Grenoble, France**

*2018–2019*

### Academy of Mathematics and Systems Science, CAS

*MS in Pure Mathematics*

Advisor : Wei-dong Ruan ( 阮卫东 )

**Beijing, China**

*2015–2018*

### Hunan University

*BS in Mathematics*

Advisor : Jun Li ( 李军 )

**Changsha, Hunan, China**

*2011–2015*

## Papers

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— **Capacities from the Chiu-Tamarkin complex.**

Preprint : arXiv 2103.05143.

## Talks

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**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

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**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

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**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

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**2018 Spring** : TA on linear algebra.

University of Chinese Academy of Sciences. **Instructor** : Prof. Ziming Li.

**2017 Autumn** : TA on Calculus A

University of Chinese Academy of Sciences. **Instructor** : Prof. Wei-dong Ruan.

## Skill

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**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*