# Bingyu ZHANG 张秉宇

Centre for Quantum Mathematics, University of Southern Denmark

Campusvej 55, 5230 Odense, Denmark

□ bingyuzhang@imada.sdu.dk • ⊕ byzhang.cn

Update: January 21, 2025

# **Positions**

University of Southern Denmark (SDU)

Odense, Denmark

2022-Present

Post-Doc at Centre for Quantum Mathematics

Mentor: Vivek Shende

**Education** 

Université Grenoble Alpes Grenoble, France

**Ph.D.** in Mathematics 2019-2022

 $The sis: \ Sheaf \ Techniques \ and \ Symplectic \ Geometry$ 

Advisor: Damien Gayet, Stéphane Guillermou and Claude Viterbo

Université Grenoble Alpes Grenoble, France

M2R Mathematics and applications 2018–2019

Advisor: Stéphane Guillermou

Academy of Mathematics and Systems Science, CAS Beijing, China

**MS** in Fundamental mathematics 2015–2018

Advisor: Wei-dong RUAN (阮卫东)

Hunan University Changsha, Hunan, China

**BS** in Mathematics and applied mathematics 2011–2015

Advisor: Jun LI (李军)

## **Papers**

Non-linear microlocal cut-off functors

Accepted by Rend. Sem. Mat. Univ. Padova. Published online first.

 $_{\odot}$  On the Hochschild cohomology of Tamarkin categories

Joint with Christopher Kuo and Vivek Shende. Preprint: arXiv 2312.11447. Submitted.

O Contact non-squeezing at large scale via generating functions

Joint with Maia Fraser and Sheila Sandon. Preprint: arXiv 2310.11993. Submitted.

 $\circ$  Idempotence of microlocal kernels and  $S^1$ -equivariant Chiu-Tamarkin invariant

Preprint: arXiv 2306.12316.

o Capacities from the Chiu-Tamarkin Complex

Journal of Symplectic Geometry, 22(3) (2024), pp. 441-524.

## **Talks**

#### Conference talks

- Oct. 2024: Uppsala-Odense Geometry Days, Uppsala
- Sep. 2024: Workshop on Generalized complex structure and homological methods, University of Hamburg, Hamburg
- Jul. 2023: Workshop on Geometric Representation Theory and Applications, YMSC/Tsinghua University, Beijing (Student presentation)
- Mar. 2023: Pseudoholomorphic Curves in Hamiltonian Dynamics, Mathematical Institute Heidelberg
- Feb. 2022: ANR COSY meeting, Paris (Online presentation)
- Jan. 2022: Global Youth Forum 2022, IGP, University of Science and Technology of China, Hefei (Online)
- Oct. 2021: UU-Nantes Workshop on Lagrangian cobordisms and Floer theory, Uppsala

#### • Seminar talks

- May. 2024: Everytopic Seminar, Brandeis University
- Apr. 2024: Topology Seminar, University of Southern California
- Mar. 2024: QM Research Seminar, CQM, University of Southern Denmark, Odense
- Jan. 2024: Symplectix Seminar, Institut Henri Poincaré, Paris
- Dec. 2023: Topology Seminar, IRMA, Strasbourg
- Nov. 2023: Bonn Symplectic Geometry Seminar, MPIM, Bonn
- Aug. 2023: Institute of Mathematical Sciences, ShanghaiTech University, Shanghai
- Aug. 2023: AMSS, Chinese Academy of Sciences, Beijing
- Mar. 2023: QM Research Seminar, CQM, University of Southern Denmark, Odense
- Nov. 2022: QM Research Seminar, CQM, University of Southern Denmark, Odense
- Oct. 2022: Institute of Mathematical Sciences, Shanghai Tech University, Shanghai
- Sep. 2022: Western Hemisphere Virtual Symplectic Seminar (Online)
- Sep. 2022: Séminaire compréhensible, Institut Fourier, Grenoble
- Feb. 2022: Geometry Seminar, Department of mathematics, Tsinghua University, Beijing
- Dec. 2021: Topology Seminar, IRMA, Strasbourg
- Noc. 2021: Geometry and Topology Seminar, Toulouse
- Nov. 2021: Symplectix Seminar, Institut Henri Poincaré, Paris
- Oct. 2021: Topology Seminar, Institut Fourier, Grenoble
- Apr. 2021: Symplectic Zoominar, CRM-Montréal, Princeton/IAS, Tel Aviv, and Paris (Online)
- Aug. 2021: Virtual Kylerec Seminar (Online)
- Nov. 2020: Séminaire compréhensible, Institut Fourier, Grenoble (Online)

### **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 (co-)Organized**

Spring 2024: QM Research Seminar, CQM, SDU. co-Organized.

Fall 2023: QM Research Seminar, CQM, SDU. co-Organized.

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

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

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

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

# **Teaching**

Spring 2025: Advanced Topic in Quantum Mathematics: Toric Geometry and F-theory.

University of Southern Denmark. Instructor, joint with Muyang Liu.

Fall 2023: Advanced Topics in Geometry and Topology: Introduction to Mirror Symmetry.

University of Southern Denmark. Instructor

Spring 2018: TA on Linear Algebra-II.

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

Fall 2017: TA on Calculus-III 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.

Programming Language: Python, C++

Software: Mathematica, Matlab

Language: Chinese (native), English(fluent), French(A1)