# Yujie Luo

CONTACT INFORMATION Johns Hopkins University Department of Mathematics 3400 North Charles Street Baltimore, Maryland 21218, USA Email: yluo320jhu.edu

**EDUCATION** 

#### Johns Hopkins University

Ph.D. Candidate, Mathematics, August 2018-now.

• Advisor: Professor Chenyang Xu, Co-Advisor: Professor Jingjun Han.

## University of Science and Technology of China (USTC)

B. Sc. in Mathematics, August 2014-June 2018.

- Undergrad Thesis: Dirichlet's Problem for the Complex Monge-Ampère Operator.
- Advisor: Professor Xiangyu Zhou.

RESEARCH INTERESTS Topics related to Birational Geometry and Differential Geometry.

PUBLICATIONS & PREPRINTS

- ☐ *ACC for minimal log discrepancies of terminal threefolds* (joint with Jingjun Han and Jihao Liu). Preprint, submitted. [arxiv]
- ☐ On boundedness of divisors computing minimal log discrepancies for surfaces (joint with Jingjun Han). Accepted by J. Inst. Math. Jussieu. [arxiv]
- ☐ Shokurov's conjecture on conic bundles with canonical singularities (joint with Jingjun Han and Chen Jiang). Accepted by Forum of Math. Sigma. [arxiv]
- ☐ A simple proof of ACC for MLD's for surfaces (joint with Jingjun Han). Accepted by Acta Math. Sin. (Engl. Ser.)
- ☐ Second largest accumulation point of minimal log discrepancies in dimension 3 (joint with Jihao Liu). Preprint, submitted. [arxiv]

**TALKS** 

- Shokurov's conjecture on conic bundles with canonical singularities, Algebraic Geometry seminar at Johns Hopkins University, October 11, 2022.
- ACC conjecture for minimal log discrepancies and its applications in birational geometry, Algebraic Geometry seminar at Northwestern University, October 5, 2022.
- Second largest accumulation point of minimal log discrepancies of threefolds, Short talks in MPS Conference on Higher Dimensional Geometry, August 22-26, 2022.
- Shokurov's conjecture on conic bundles with canonical singularities, USTC NTAG 1-st, April 13, 2021.
- Shokurov's conjecture on conic bundles with canonical singularities, Morningside Center of Mathematics, January 13, 2021.
- On boundedness of divisors computing minimal log discrepancies for surfaces, Simons conference-Rationality, July 30, 2020.
- On boundedness of divisors computing minimal log discrepancies for surfaces, Algebraic Geometry Seminar (Online), The University of Tokyo, July 26, 2020.

SEMINARS & LECTURES

- Four lectures on the resolution of singularities, Reading Workshop: Boundedness and Resolution at SCMS Fudan, 2021 summer.
- Geography of birational models, reading seminar at BICMR 2021 Spring.
- Seminars on birational geometry, reading seminar at JHU 2019 Spring.

VISITINGS January 2022-Present Department of Mathematics at Princeton University

July 2021-August 2021 SCMS at Fudan University
October 2020-July 2021 BICMR at Peking University

HONORS AND AWARDS

## University of Science and Technology of China

2018 Outstanding Undergraduates

2015,2016,2017 China National Scholarship (three times)

2017 Prize of Hua Loo-Keng Talent Program in Mathematics

TEACHING EXPERIENCE

## **Johns Hopkins University**

2021 Fall Teaching assistant, Linear Algebra

Grader, Complex Analysis (Honor)

2021 Spring Teaching assistant, Linear Algebra 2020 Fall Teaching assistant, Linear Algebra

Grader, Complex Analysis (Honor)

2020 Spring Teaching assistant, Calculus II (For Physical Sciences and Engineering)

Grader, Riemannian Surface

2019 Fall Teaching assistant, Linear Algebra

Grader, Riemann Geometry

2018 Fall Grader, Complex Analysis (Honor)

### University of Science and Technology of China

2017 Fall Teaching assistant, Functional Analysis