Shiyu Zhang Curriculum Vitae

PERSONAL INFORMATION

Full Name: Shiyu Zhang (Chinese name: 张世宇)
Gender: Male
Birth: April 1999
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EDUCATION

Ph.D. Mathematics, University of Science and Technology of China. 2020-2026
Ph.D. Thesis: Non-abelian Hodge correspondence over singular Kähler varieties and related studies,
Supervisor: Professor Xi Zhang
B.S. Mathematics, University of Science and Technology of China. 2016-2020

RESEARCH INTERESTS

My research lies in complex analytic geometry and differential geometry, with a focus on:

- Non-abelian Hodge theory on singular Kähler spaces;
- Second Chern classes, Miyaoka–Yau type inequalities, and structure theorems;
- Structure of manifolds with semi-positive curvature conditions.

PUBLICATIONS

(1) Compact Kähler manifolds with partially semi-positive curvature, with X. Zhang, to appear in Transactions of the American Mathematical Society.

PREPRINTS

(1) Compact Kähler manifolds with quasi-positive holomorphic sectional curvature (with X. Zhang), arXiv: 2311.18779v4.
(2) Regularizing property of the twisted conical Kähler-Ricci flow, (with Jiawei Liu and Xi Zhang), arXiv: 2406.08778.
(3) The Miyaoka-Yau inequality on minimal Kähler spaces, (with C. Zhang and X. Zhang), arXiv: 2503.13365v3.
(4) Miyaoka-Yau inequality for singular varieties with big canonical or anticanonical divisor, (with M. Iwai and S. Jinnouchi), arXiv: 2507.08522v2.
(5) Non-abelian Hodge correspondence over singular Kähler spaces, (with C. Zhang and X. Zhang), arXiv: 2601.12071.

SELECTED TALKS

(1) Workshop on Geometric Analysis 2024. July 2024. Inner Mongolia University, Inner Mongolia, China.
On the structure of compact Kähler manifolds with semi-positive holomorphic sectional curvature.
(2) 30th International Conference on Finite or Infinite Dimensional Complex Analysis and Applications (ICFIDCAA 2024). August 2024. Tohoku University, Sendai.
A Bochner-type formula for nonnegative holomorphic sectional curvature.
(3) Young Geometric Forum at Nanjing University of Science and Technology. July 2025. Nanjing, China.
The Miyaoka-Yau inequality for minimal Kähler klt spaces.

(4) Young Geometric Analysis Forum. June 2025. Xiamen University.
Compact Kähler manifolds with partially semi-positive curvature.

(5) The 31th Symposium on Complex Geometry. December 2025. Kanazawa, Japan.
Non-abelian Hodge correspondence over Kähler Log Terminal Varieties.

(6) Workshop on Geometric Analysis. May 2026. Zhuhai, China.
Non-abelian Hodge correspondence and the Miyaoka-Yau equality over singular varieties.