Shengxuan Zhou

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Research Interests

Partial Differential Equations, Kähler Geometry, Metric Geometry

Education

Peking University   September 2019 – Present
Ph.D. in Mathematics, Department of Mathematics   *Beijing, China*
Advisor: Professor Gang Tian

Lanzhou University   September 2015 – July 2019
B.S. in Mathematics, School of Mathematics and Statistics   *Lanzhou, China*

Publications and Preprints

On the convergence rate of Bergman metrics
Peking Math J (2022). https://doi.org/10.1007/s42543-022-00055-z

The asymptotic behaviour of Bergman kernels
arXiv:2112.08893 (Accepted by Adv. math.).

A Regularity Theory for Static Schrödinger Equations on R^d in Spectral Barron Spaces
Joint work with Zi'ang Chen, Jianfeng Lu and Yulong Lu.
SIAM J. Math. Anal. **55** *(2023), no. 1, 557–570.*

Peak sections and Bergman kernels on Kähler manifolds with complex hyperbolic cusps
Math. Ann. (2024). https://doi.org/10.1007/s00208-024-02798-9

Bergman kernels on degenerations
Joint work with Linsheng Wang
arXiv:2304.01943 (Submitted).

On the Gromov-Hausdorff limits of Tori with Ricci conditions
arXiv:2309.10997 (Submitted).

Talks

Geometric Analysis Seminar (Online)   December 2021
 Zhejiang University

Rutgers CA/HA/CG Seminar (Online)   April 2022
 Rutgers University

Beijing Geometry Day   March 2023
 Beijing Normal University

Recent Progress in Geometric Analysis   April 2023
 Westlake University

Geometry Seminar   September 2023
 Tsinghua University

Geometry Seminar   October 2023
 Westlake University

Differential Geometry Seminar (Online)   February 2024
 UC Berkeley

Teaching

Teaching Assistant: Differential Geometry   Spring 2020
Peking University

Teaching Assistant: Differential Geometry   Spring 2021
Peking University

Teaching Assistant: Mathematical Analysis III   Fall 2021
Peking University

Teaching Assistant: Advanced Algebra II   Spring 2022
Peking University

Teaching Assistant: Advanced Mathematics B   Fall 2022
Peking University