

Yaxiong Liu

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Phone number: +1 2409608863

Date of birth: February 28, 1995.

Citizenship: China Sex: Male

Research interests

Kähler geometry, Algebraic geometry, Several complex variables and complex geometry.

Education

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| 2023 – present | University of Maryland – College Park, US
Postdoc in Mathematics
Mentor: Professor Tamás Darvas. |
| 2020 – 2023 | Tsinghua University – Beijing
PhD in Mathematics
Supervisor: Professor Akito Futaki. |
| 2017 – 2020 | Institute of Mathematics, Academy of Mathematics and Systems Science, Chinese Academy of Sciences – Beijing
M.S. in Mathematics
Supervisors: Professor Weidong Ruan, Professor Jiayu Li. |
| 2013 – 2017 | Lanzhou University – Lanzhou, Gansu
B.S. in Mathematics and Applied Mathematics
Supervisor: Professor Wei zhang. |

Honors and scholarships

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| 2022 | National Scholarship for Graduate Student (China) |
| 2022 | Excellent Postgraduate Award (Yau Mathematical Sciences Center in Tsinghua University)
<i>The scholarship is supported by Professor Yau, named by his mother, called Ruolin graduate Award.</i> |
| 2021 | Excellent Postgraduate Award (Yau Mathematical Sciences Center in Tsinghua University) |
| 2021 | Comprehensive Scholarship (Tsinghua University) |

Publications

1. Y. Liu, *Uniform K-stability and conformally Kähler, Einstein-Maxwell geometry on toric manifolds*, Tohoku Math. J. (2) 74 (2022), no 1, 1-21;
2. Y. Liu, *Openness of uniformly valuative stability on the Kähler cone of projective manifolds*, Math. Z. 303 (2023), no 2, 52.

Preprints

1. Y. Liu, Zhuo Liu, Hui Yang, and Xiangyu Zhou, *A Le Potier-type isomorphism theorem for holomorphic vector bundles with strongly Nakano positive singular hermitian metrics*, preprint.

Teaching experience

1. Department of Mathematics, University of Maryland
 - *Differential geometry of curves and surfaces I*, Fall, 2023.
2. Teaching Assistant at School of Mathematical Sciences, Tsinghua University
 - *Topics in Complex Geometry*, Fall, 2022.
 - *Differential geometry III–Complex Geometry*, Spring, 2022.
 - *Differential geometry III–Complex Geometry*, Spring, 2021.
3. Teaching Assistant at School of Mathematical Sciences, University of Chinese Academy of Sciences
 - *Differential geometry*, Fall, 2018.
 - *Calculus*, Fall, 2017.

Academic Visits

June 2023 Westlake University, visiting Prof. Jiyuan Han for one week

Invited Talks

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| 10 2023 | A Le Potier-type Isomorphism with Multiplier Submodule Sheaves, Geometry and Geometric Analysis seminar in Purdue |
| 10 2023 | The eigenvalue problem of complex Hessian operators, IGA UMD |
| 6 2023 | Recent progress on the valuative stability of polarized varieties, ITS Westlake University |
| 12 2022 | Uniformly valuative stability of polarized varieties and applications, IGA seminar, Maryland University |
| 11 2022 | Uniformly valuative stability of polarized varieties and applications, Tsinghua University |
| 12 2020 | Uniform K-stability and cKEM geometry on toric manifolds, Chinese Academy of Sciences. |
| 12 2020 | Geodesic rays and stability in the cscK problem, Beijing Geometric Analysis Day in Xiangshan. |
| 10 2020 | Uniform K-stability and cKEM geometry on toric manifolds, Peking University. |