Yaxiong Liu

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Date of birth: February 28, 1995.
Citizenship: China   Sex: Male

Research interests

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

Education

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

2022	National Scholarship for Graduate Student (China)
2022	Excellent Postgraduate Award (Yau Mathematical Sciences Center in Tsinghua University) *The scholarship is supported by Professor Yau, named by his mother, called Ruolin graduate Award.*
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 twisted with multiplier submodule sheaves*, 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.

   - *Calculas*, Fall, 2017.

Academic Visits

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

Invited Talks

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.