Jinrong Hu

Birthday: 1997-05 Gender: Female
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Education Experience

Sep 2015 - Jun 2019
Chongqing Jiaotong University, China **Mathematics (Bachelor)**

Sep 2019 - Present
Hunan University, China **Mathematics**

Research Interests

My research is in the field of convex geometric analysis and partial differential equations.

Status

I am currently a PhD in the third year in the School of Mathematics at Hunan University. My supervisor is prof. Yong Huang, my research contents mainly involve the asymptotic behavior analysis of geometric flow (mainly Gaussian curvature flow, nonlinear curvature flow, logarithmic curvature flow), the use of geometric flow to solve some problems in convex geometry (such as the regularity of smooth solutions of Minkowski problem), the use of variational theory to solve geometric problems (such as the existence of weak solutions of Minkowski problem) and the discovery of some geometry inequalities .

Past Activities

- Academic Conference on Nonlinear Partial Differential Equations and Geometric Analysis, in China, Hunan University, 2019
- Symposium on the Frontiers of Geometric Analysis and Partial Differential Equations, in China, Shaanxi Normal University, 2021
- The 20th Academic Conference on Nonlinear Partial Differential Equations, in China, Hunan University, 2022

Publications and preprints

[1] Jinrong Hu, Jiaqian Liu: On the L_p torsional Minkowski problem for $0<p<1$. Adv. in Appl. Math. 128 (2021), Paper No. 102188, 22 pp.
[2] Jinrong Hu, Jiaqian Liu, Di Ma: A Gauss curvature flow to the Orlicz-Minkowski problem for torsional rigidity. J. Geom. Anal. 32 (2022), no. 2, Paper No. 63, 28 pp.
[3] Jinrong Hu, Jiaqian Liu, Di Ma: A flow method to the Orlicz-Aleksandrov problem. J. Funct. Anal. 284 (2023), no. 6, Paper No. 109825, 24 pp.
[4] Jinrong Hu, Jiaqian Liu, Di Ma, Jing Wang: Deforming a hypersurface by a class of generalized fully nonlinear curvature flows,arXiv:2206.01963.
[5] Jinrong Hu, Qiongfang Mao: A logarithmic curvature flow and the weighted Christoffel-Minkowski problem, arXiv:2302.10537.
[6] Jinrong Hu: A Gauss curvature flow approach to the torsional Minkowski problem, submitted.
[7] Jinrong Hu, Ping Zhang: Pinching estimates of hypersurfaces by a generalized Gauss curvature flow, submitted.
[8] Jinrong Hu, Ping Zhang: The functional Orlicz-Brunn-Minkowski inequality for q-torsional rigidity, submitted.

[9] Jinrong Hu, Qiongfang Mao, Sinan Wang: On the continuity of the solutions to the L_{p} torsional Minkowski problem, arXiv:2303.11038 .
[10] Jinrong Hu, Yong Huang, Jian Lu: On the regularity of the chord log-Minkowski problem, arXiv:2304.14220 .
[11] Jinrong Hu, Yong Huang, Jian Lu, Sinan Wang: The chord Gauss curvature flow and its Lp chord Minkowski problem,arXiv:2305.00453.

Awards

- The 17th 'Summer School on Nonlinear Partial Differential Equations' , in China, Jilin University, August, 2019, Third prize
- The 18th 'Summer School on Nonlinear Partial Differential Equations' , in China, Harbin Engineering University, August, 2020, First prize