

A list of my papers

- [24] **Gao, Laiyuan** *Relatively elastic curves and a curvature flow*. In preparation.
- [23] **Gao, Laiyuan** *Remarks on Gage's inequality and the higher dimensional analogs*. to be submitted.
- [22] **Gao, Laiyuan; Hou, Haoran** *Gaps between consecutive Dirichlet eigenvalues for positively curved domains*, submitted.
- [21] **Gao, Laiyuan; Zhang, Yuntao; Zhang, Shicheng** *Star-shaped Curves under Gage's Area-preserving Flow and the CSF*. arXiv:2412.18102
- [20] **Gao, Laiyuan; Pan, Shengliang** *Evolving convex curves by a generalized length-preserving flow*. arXiv:2012.11549
- [19] **Gao, Laiyuan; Pan, Wenjing; Zhang, Yuntao** *Evolving star-shaped curves to equichordal curves*. Internat. J. Math. Vol. 36(2025), No. 09, Paper No.2550025, 16 pages.
- [18] **Gao, Laiyuan; Wang, Zheqi** *Evolving an immersed star-shaped curve to another one with same winding number*. J. Differential Equations Vol. 424 (2025), 421–437.
- [17] **Gao, Laiyuan; Martini, Horst; Zhang, Deyan** *Deforming locally convex curves into curves of constant k -order width*. Differential Geom. Appl. 97 (2024), Paper No. 102192, 15 pages.
- [16] 高来源, 郝瑞霞, 潘生亮 *非局部平面曲线流——献给姜礼尚教授 90 华诞*. 中国科学-数学, No.3, 54 (2024), 407–422.
- [15] **Gao, Laiyuan** *Whitney-Graustein homotopy of locally convex curves via a curvature flow*. Math. Res. Lett. 30 (2023), no. 4, 1045–1062.
- [14] **Gao, Laiyuan; Pan, Shengliang** *Star-shaped centrosymmetric curves under Gage's area-preserving flow*. J. Geom. Anal. 33 (2023), no. 11, Article No. 348, 25 pages.
- [13] **Gao, Laiyuan; Zhang, Yuntao** *Evolving compact locally convex curves and convex hypersurfaces*. Manuscripta Math. 167 (2022), no. 1-2, 365–375.
- [12] **Gao, Laiyuan; Pan, Shengliang; Shi, Ke** *A log-type non-local flow of convex curves*. Comm. Anal. Geom. 29 (2021), no. 5, 1157–1182.
- [11] **Gao, Laiyuan; Pan, Shengliang; Tsai, Dong-Ho** *On an area-preserving inverse curvature flow of convex closed plane curves*. J. Funct. Anal. 280 (2021), no. 8, Paper No. 108931, 31 pages.
- [10] **Gao, Laiyuan; Zhang, Zhongyun; Zhou, Fei** *An extension of Rabinowitz's polynomial representation for convex curves*. Beitr. Algebra Geom. 61 (2020), no. 3, 455–464.
- [9] **Gao, Laiyuan; Pan, Shengliang; Tsai, Dong-Ho** *Nonlocal flow driven by the radius of curvature with fixed curvature integral*. J. Geom. Anal. 30 (2020), no. 3, 2939–2973.
- [8] **Gao, Laiyuan; Pan, Shengliang; Tsai, Dong-Ho** *On a length-preserving inverse curvature flow of convex closed plane curves*. J. Differential Equations 269 (2020), no. 7, 5802–5831.
- [7] **Gao, Laiyuan; Zhang, Yuntao** *On Yau's problem of evolving one curve to another: convex case*. J. Differential Equations 266 (2019), no. 1, 179–201.
- [6] **Gao, Laiyuan; Zhang, Yuntao** *Evolving convex surfaces to constant width ones*. Internat. J. Math. 28 (2017), no. 11, 1750082, 18 pp.
- [5] **Gao, Laiyuan; Pan, Shengliang** *Gage's original normalized CSF can also yield the Grayson theorem*. Asian J. Math. 20 (2016), no. 4, 785–794.
- [4] **Gao, Laiyuan; Tsai, Dong-Ho** *On a third order flow of convex closed plane curves*. Taiwanese J. Math. 20 (2016), no. 3, 553–567.
- [3] **Gao, Laiyuan; Pan, Shengliang; Yang, Yunlong** *Some notes on Green-Osher's inequality*. J.

Math. Inequal. 9 (2015), no. 2, 369–380.

- [2] **Gao, Laiyuan; Wang, Yiling** *Deforming convex curves with fixed elastic energy.* J. Math. Anal. Appl. 427 (2015), no. 2, 817–829.
- [1] **Gao, Laiyuan; Pan, Shengliang** *Evolving convex curves to constant-width ones by a perimeter-preserving flow.* Pacific J. Math. 272 (2014), no. 1, 131–145.

我在 arxiv.org

<https://arxiv.org/search/?searchtype=author&query=Gao%2C+Laiyuan>