

A list of my publications

By Qing-Ming Cheng

Books:

1. 線形代数学大全
石川 晋・成 慶明, 日本評論社
第1部 とことんわかる線形代数学の基礎理論, 2008年
第2部 じっくりまなぶ線形空間論, 2008年
第3部 展望につながる線形代数学の発展理論, 2008年
2. 曲面の微分幾何学——局所理論から大域理論へ, 塩濱勝博・成 慶明, 日本評論社, 2006年
3. 線形代数学入門,
石川 晋・成 慶明, 丸善出版, 2006年
4. Differential Geometry (JMM. No. 3), Qing-Ming Cheng, 2001

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1. (With G. Wei) Estimates for Eigenvalues of the Dirichlet Laplacian on Riemannian Manifolds, **Chin. Ann. Math.** Ser. B, 47(2025), 1-16, DOI: 10.1007/s11401-025-0001-8
2. (With G. Wei) 3-dimensional complete vacuum static spaces, **Sci. China Math.**, 68(2025), online
3. (With Y. Peng) Complete minimal hypersurfaces in a hyperbolic space $\mathbf{H}^{n+1}(-1)$, **Pacific J. Math.**, 338 (2025), doi.org/10.2140/pjm.2025.338.251
4. (With G. Wei and T. Yamashiro) The second gap of the scalar curvature of complete minimal hypersurfaces, **Comm. Analy. Geom.**, 33 (2025), 623-636. DOI:10.4310/CAG.2507301742
5. (With G. Wei) Chern problems and Chern conjecture for minimal hypersurfaces, *Sci. Sinica Math.*, 55(2025), 131-144, doi: 10.1360/SSM-2024-0077
6. (With Z. Li and G. Wei) A classification of complete 3-dimensional self-shrinkers in the Euclidean space \mathbb{R}^4 , *Sci. China Math.*, 67(2024), 873-882. Doi:10.1007/s11425-022-2121-7
7. (With J. Lai and G. Wei) Examples of compact embedded convex λ -hypersurfaces, **J. Funct. Anal.** 286(2024), Art. 110211: 1-12. DOI:10.1016/j.jfa.2023.110211
8. (With G. Wei) Complete hypersurfaces with w -constant mean curvature in the unit spheres, **Trans. Amer. Math. Soc.**, 377 (2024), 887-904. DOI:10.1090/tran/9076
9. (With H. Hori and G. Wei), Complete Lagrangian self-shrinkers in R^4 , **Math. Z.** 301 (2022), 3417-3468. doi.org/10.1007/s00209-022-03027-2
10. (with G. Wei) Stability and area growth of λ -hypersurfaces, **Comm. Analy. Geom.**, 30 (2022), 1059-1091.

11. (With G. Wei) Complete λ -hypersurfaces in Euclidean spaces, *Chin. Ann. Math. Ser. B*, 43(5) (2022), 877-892 DOI:10.1007/s11401-022-0365-y
12. (With G. Wei and W. Yano), The second gap on complete self-shrinkers, **Proc. Amer. Math. Soc.** 151 (2022), 339-348. doi.org/10.1090/proc/16107
13. (With D. Chen and H. Li) Faber-Krahn inequalities for the Robin Laplacian on bounded domain in Riemannian manifolds, *J. Diff. Eqn*, 336(2022), 374-386. www.elsevier.com/locate/jde
14. (With Z. Li and G. Wei) Complete self-shrinkers with constant norm of the second fundamental form, **Math. Z.**, 300 (2022), 995-1018. doi.org/10.1007/s00209-021-02831-6
15. (With G. Wei and Y. Zheng) Area of minimal hypersurfaces in the unit sphere, **Asian J. Math.**, 25(2021), 183-194. Doi:10.4310/AJM.2021.v25.n2.a2
16. (With G. Wei) Complete λ -surfaces in R^3 , *Calculus of Variations and PDEs*, 60(2021), 300 Art 46: 1-19, DOI: 10.1007/ s00526-021-01920-y.
17. (with G. Wei), Examples of compact λ -hypersurfaces in Euclidean spaces, *Sci. China Math.*, 64 (2021), 155-166. doi.org/10.1007/s11425-018-9464-7
18. (with G. Wei) Complete self-shrinkers of mean curvature flow, *Proceedings of ICCM 2018*, (2020), pp.179-196.
19. (with G. Wei), Geometry of complete λ -hypersurfaces (in Chinese), *Sci. Sin. Math.* 48(2018), 699-710, doi:10.1360/N012017-00205.
20. (with G. Wei) Complete λ -hypersurfaces of weighted volume-preserving mean curvature flow, **Calc. Var. PDEs**, 57(2018), Art 32:1-21, DOI 10.1007/s00526-018-1303-4.
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22. (with D. Chen) Estimates for the first eigenvalue of Jacobi operator on hypersurfaces with constant mean curvature in spheres, **Calc. Var. PDEs**, 56(2017), 50:1-12, DOI 10.1007/s00526-017-1132-x.
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26. Critical Points of the Weighted Area Functional, **Geometry and Topology of Manifolds, Springer Proceedings in Math. & Stat.** 154, pp. 81-96, DOI 10.1007/978-4-431-56021-0-4, 2016.

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37. (with Hongcang Yang) Universal bounds for eigenvalues of a buckling problem II, **Trans. Amer. Math. Soc.**, 364(2012), 6139-6158
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