

PUBLICATION LIST – STEFAN WENGER

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PREPRINTS AND PUBLICATIONS

40. with G. Basso and D. Marti: *Geometric and analytic structures on metric spaces homeomorphic to a manifold*, preprint arXiv 2023.
39. with S. Stadler: *Isoperimetric inequalities vs. upper curvature bounds*, **Geom. Topol.**, to appear.
38. with D. Meier: *Quasiconformal almost parametrizations of metric surfaces*, **J. Eur. Math. Soc.**, to appear.
37. with R. Young: *Constructing Hölder maps to Carnot groups*, **J. Amer. Math. Soc.**, to appear.
36. with G. Basso and R. Young: *Undistorted fillings in subsets of metric spaces*, **Adv. in Mathematics** **423** (2023), paper no. 109024, 54 pp.
35. with E. Soultanis: *Area minimizing surfaces in homotopy classes in metric spaces*, **Trans. Amer. Math. Soc.** **375** (2022), no. 7, 4711–4739.
34. with H. Sidler: *Harmonic quasi-isometric maps into Gromov hyperbolic CAT(0)-spaces*, **J. Differential Geom.** **118** (2021), no. 3, 555–572.
33. with M. Fitzi: *Area minimizing surfaces of bounded genus in metric spaces*, **J. Reine Angew. Math** **770** (2021), 87–112.
32. with M. Fitzi: *Morrey’s ε -conformality lemma in metric spaces*, **Proc. AMS** **148** (2020), 4285–4298.
31. with A. Lytchak and R. Young: *Dehn functions and Hölder extensions in asymptotic cones*, **J. Reine Angew. Math.** **763** (2020), 79–109.
30. with A. Lytchak: *Canonical parametrizations of metric discs*, **Duke Math. Journal** **169** (2020), no. 4, 761–797.
29. with C. Guo: *Area minimizing discs in locally non-compact metric spaces*, **Comm. Anal. Geom.** **28** (2020), no. 1, 89–112.
28. *Spaces with almost Euclidean Dehn function*, **Math. Ann.** **373** (2019), no. 3–4, 1177–1210.
27. with A. Lytchak: *Isoperimetric characterization of upper curvature bounds*, **Acta Math.** **221** (2018), no. 1, 159–202.
26. with A. Lytchak: *Intrinsic structure of minimal discs in metric spaces*, **Geom. Topol.** **22** (2018), no. 1, 591–644.
25. with A. Lytchak: *Energy and area minimizers in metric spaces*, **Adv. Calc. Var.** **10** (2017), no. 4, 407–421.
24. with A. Lytchak: *Area minimizing discs in metric spaces*, **Arch. Rational Mech. Anal.** **223** (2017), no. 3, 1123–1182.

23. with A. Lytchak: *Regularity of harmonic discs in spaces with quadratic isoperimetric inequality*, **Calc. Var. and Partial Differential Equations** **55** (2016), no. 4, Paper No. 98, 19 pp.
22. with C. Petit, K. Rajala: *Wolfe's theorem for weakly differentiable cochains*, **J. Funct. Anal.** **268** (2015), no. 8, 2261–2297.
21. *Isoperimetric inequalities and asymptotic geometry*, **Proceedings of the ICM 2014**, Vol. II, 1049–1073.
20. with R. Young: *Lipschitz homotopy groups of the Heisenberg groups*, **Geom. Funct. Anal.** **24** (2014), no. 1, 387–402.
19. *Plateau's problem for integral currents in locally non-compact metric spaces*, **Adv. Calc. Var.** **7** (2014), no. 2, 227–240.
18. with K. Rajala: *An upper gradient approach to weakly differentiable cochains*, **J. Math. Pures Appl.** **100** (2013), no. 6, 868–906.
17. with U. Lang: *The pointed flat compactness theorem for locally integral currents*, **Comm. Anal. Geom.** **19** (2011), no. 1, 159–190.
16. *Nilpotent groups without exactly polynomial Dehn functions*, **Journal of Topology** **4** (2011), no. 1, 141–160.
15. with C. Sormani: *The Intrinsic flat distance between Riemannian manifolds and other integral current spaces*, **J. Differential Geom.** **87** (2011), no. 1, 117–199.
14. *The asymptotic rank of metric spaces*, **Commentarii Mathematici Helvetici** **86** (2011), no. 2, 247–275.
13. with L. Ambrosio: *Rectifiability of flat chains in Banach spaces with coefficients in \mathbb{Z}_p* , **Math. Zeitschrift** **268** (2011), no. 1–2, 477–506.
12. *Compactness for manifolds and integral currents with bounded diameter and volume*, **Calc. Var. and Partial Differential Equations** **40** (2011), no. 3–4, 423–448.
11. with R. Young: *Lipschitz extensions into jet space Carnot groups*, **Math. Res. Lett.** **17** (2010), no. 6, 1137–1149.
10. with S. Rigot: *Lipschitz non-extension theorems into jet space Carnot Groups*, **Int. Math. Res. Not.** (2010), no. 18, 3633–3648.
9. with C. Sormani: *Weak convergence of currents and cancellation*, with an appendix by R. Schul, **Calc. Var. and Partial Differential Equations** **38** (2010), no. 1–2, 183–206.
8. *Characterizations of metric trees and Gromov hyperbolic spaces*, **Math. Res. Lett.** **15** (2008), no. 5, 1017–1026.
7. *A short proof of Gromov's filling inequality*, **Proc. Amer. Math. Soc.** **136** (2008), no. 8, 2937–2941.
6. *Gromov hyperbolic spaces and the sharp isoperimetric constant*, **Invent. Math.** **171** (2008), no. 1, 227–255.
5. with U. Lang: *Isoperimetric inequalities and the asymptotic geometry of Hadamard spaces*, in **L'Enseignement Mathématique (2)** **54** (2008), fasc. 1–2.
4. *Flat convergence for metric integral currents*, **Calc. Var. and Partial Differential Equations** **28** (2007), no. 2, 139–160.

PREPRINTS AND PUBLICATIONS (CONT.)

3. *Filling invariants at infinity and the Euclidean rank of Hadamard spaces*, **Int. Math. Res. Not.** (2006), Volume 2006, Article ID 83090, 33 pages.
2. *Isoperimetric inequalities of Euclidean type in metric spaces*, **Geom. Funct. Anal.** **15** (2005), no. 2, 534–554.
1. *Isoperimetric inequalities of Euclidean type and applications*, PhD thesis, ETH Zürich (2004).