

Publikationsliste

Alexander Lytchak

47. Short retractions of CAT(1) spaces

To appear in **Proc. Amer. Math. Soc.** (with A. Petrunin).

46. Ricci curvature in dimension 2

To appear in **J. Eur. Math. Soc.** (with S. Stadler).

45. Topological regularity of spaces with an upper curvature bound

To appear in **J. Eur. Math. Soc.** (with K. Nagano).

44. Metric measure boundary and geodesic flow on Alexandrov spaces

To appear in **J. Eur. Math. Soc.** (with V. Kapovitch, A. Petrunin).

43. Improvements of upper curvature bounds

Trans. Amer. Math. Soc., online first (2020) (with S. Stadler).

42. Canonical parametrization of metric discs

Duke Math. J. 169 (2020), 761-797 (with S. Wenger).

41. Dehn functions and Hölder extensions in asymptotic cones

J. Reine Angew. Math. 763 (2020), 79-109 (with S. Wenger, R. Young).

40. Rigidity if Busemann convex Finsler metrics

Comment. Math. Helv. 94 (2019), 855-868 (with S. Ivanov).

39. Geodesically complete spaces with an upper curvature bound

Geom. Funct. Anal. 29 (2019), 295-342 (with K. Nagano).

38. Conformal deformations of CAT(0) spaces

Math. Ann. 373 (2019), 155-163 (with S. Stadler).

37. Isoperimetric characterization of upper curvature bounds

Acta Math. 22 (2018), 159-202 (with S. Wenger).

36. Intrinsic structure of minimal discs in metric spaces

Geom. Topol. 22 (2018), 591-644 (with S. Wenger).

35. Algebraic nature of singular Riemannian foliations in spheres

J. Reine Angew. Math. 744 (2018), 265-273 (with M. Radeschi).

- 34. Area minimizing discs in metric spaces**
Arch. Rational Mech. Anal. 223 (2017), 1123-1182 (with S. Wenger).
- 33. Energy and area minimizers in metric spaces**
Adv. Calc. Var. 10 (2017), 407-421 (with S. Wenger).
- 32. The curvature of orbit spaces**
Geom. Dedicata 190 (2017), 135-142 (with C. Gorodski).
- 31. Riemannian foliations on spheres**
Geom. Topol. 20 (2016), 1257-1274 (with B. Wilking).
- 30. Isometric actions on spheres with an orbifold quotient**
Math. Ann. 365 (2016), 1041-1067 (with C. Gorodski).
- 29. Regularity of harmonic discs in spaces with quadratic isoperimetric inequality**
Calc. Var. Partial Differential Equations 55 (2016), 55-98 (with S. Wenger).
- 28. Riemannian foliations on contractible manifolds**
Münster J. Math. 8 (2015), 1-16 (with L. Florit, O. Goertsches, D. Toebe).
- 27. Representations whose minimal reduction has a toric identity component**
Proc. Amer. Math. Soc. 143 (2015), 379-386 (with C. Gorodski).
- 26. Polar foliations on symmetric spaces**
Geom. Funct. Anal. 24 (2014), 1298-1315.
- 25. On orbit spaces of representations of compact Lie groups**
J. Reine Angew. Math. 691 (2014), 61-100 (with C. Gorodski).
- 24. Homogeneous compact geometries**
Transform. Groups 19 (2014), 793-852 (with L. Kramer).
- 23. On contractible orbifolds**
Proc. Amer. Math. Soc. 141 (2013), 3303-3304.
- 22. Polar actions on symmetric spaces of higher rank**
Bull. London. Math. Soc. 45 (2013), 341-350 (with A. Kollross).
- 21. Affine images of Riemannian manifolds**
Math. Z. 270 (2012), 809-817.

- 20.** *On the smoothness of isometries between orbit spaces*
Proceedings RIGA (2011), 17-28 (with M. Alexandrino).
- 19.** *Geometric resolution of singular Riemannian foliations*
Geom. Dedicata 149 (2010), 397-416.
- 18.** *At infinity of finite-dimensional $CAT(0)$ spaces*
Math. Ann. 346 (2010), 1-21 (with P.-E. Caprace).
- 17.** *Curvature explosion in quotients and applications*
J. Differential Geom. 85 (2010), 117-140 (with G. Thorbergsson).
- 16.** *Notes on the Jacobi equation*
Differential Geom. Appl. 27 (2009), 329-334.
- 15.** *The de Rham decomposition theorem for metric spaces*
Geom. Funct. Anal. 18 (2008), 120-143 (with T. Foertsch).
- 14.** *Non-positive curvature and the Ptolemy inequality*
Int. Math. Res. Not. 22 (2007) (with T. Foertsch, V. Schroeder).
- 13.** *Tangent spaces and Gromov-Hausdorff limits of subanalytic spaces*
J. Reine Angew. Math. 608 (2007), 1-15 (with A. Bernig).
- 12.** *Variationally complete actions on nonnegatively curved manifolds*
Illinois J. Math. 51 (2007), 605-615 (with G. Thorbergsson).
- 11.** *Spaces with many affine functions*
Proc. Amer. Math. Soc. 135 (2007), 2263-2271 (with P. Schwer).
- 10.** *Affine functions on $CAT(\kappa)$ spaces*
Math. Z. 255 (2007), 231-244 (with V. Schroeder).
- 9.** *Building-like spaces*
J. Math. Kyoto Univ. 46 (2006), 789-805 (with A. Balser).

8. On Hoelder continuous Riemannian and Finsler metrics
Trans. Amer. Math. Soc. 358 (2006), 2917-2926 (with A. Yaman).

7. Rigidity of spherical buildings and joins
Geom. Funct. Anal. 15 (2005), 720-752.

6. Centers of convex subsets of buildings
Ann. Global Anal. Geom. 28 (2005), 201-209 (with A. Balser).

5. Almost convex subsets
Geom. Dedicata 115 (2005), 201-218.

4. Open map theorem in metric spaces
St.-Petersburg Math. J. 17 (2005), 477-491.

3. Differentiation in metric spaces
St.-Petersburg Math. J. 16 (2005), 1017-1041.

2. On the geometry of subsets of positive reach
Manuscripta Math. 115 (2004), 199-205.

1. A metric characterization of spherical and Euclidean buildings
Geom. Topol. 5 (2001), 521-550 (with R. Charney).