

Publications

John Lott

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2. “The Yang-Mills Collective-Coordinate Potential”, *Comm. Math. Phys.* 95, p. 289-300 (1984)
3. “The Eta-Function and Some New Anomalies”, *Phys. Lett. B* 145, p. 179-180 (1984)
4. “Effective Actions and Large-N Limits”, *Comm. Math. Phys.* 100, p. 133-140 (1985)
5. “Degrees of Freedom and Quantization of Anomalous Gauge Theories”, with R. Rajaraman, *Phys. Lett. B* 165, p. 321-326 (1985)
6. “A Proof of the Axial Anomaly”, *Comm. Math. Phys.* 97, p. 371-379 (1985)
7. “Eigenvalue Bounds for the Dirac Operator”, *Pac. J. Math.* 125, p. 117-126 (1986)
8. “Bosonization in Curved Spacetime”, *Phys. Lett. B* 173, p. 319-320 (1986)
9. “Renormalization Group Flow for General σ -Models”, *Comm. Math. Phys.* 107, p. 165-176 (1986)
10. “Supersymmetric Path Integrals”, *Comm. Math. Phys.* 108, p. 605-629 (1986)
11. “Real Anomalies”, *J. Math. Phys.* 29, p. 1455-1464 (1988)
12. “Analytic Torsion for Group Actions”, in *Recent Developments in Geometry (Los Angeles, 1987)*, *Cont. Math.* 101, AMS, Prov, RI, p. 179-189 (1989)
13. “Torsion Constraints in Supergeometry”, *Comm. Math. Phys.* 133, p. 563-615 (1990)
14. “Particle Models and Noncommutative Geometry”, with A. Connes, in *Recent Advances in Field Theory (Annecy-le-Vieux, 1990)*, *Nucl. Phys. B Proc. Suppl.* 18B (1990)

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17. “Superconnections and Higher Index Theory”, *Geom. Funct. Anal.* 2, p. 421-454 (1992)
18. “Heat Kernels on Covering Spaces and Topological Invariants”, *J. Diff. Geom.* 35, p. 471-510 (1992)
19. “Higher Eta-Invariants”, *K-Theory* 6, p. 191-233 (1992)
20. “Heat Kernels on Covering Spaces and Topological Invariants”, in *Proceedings of 1990 Summer Institute on Differential Geometry*, Proc. Symp. Pure Math. 54, Vol. 2, eds. R. Greene and S.T. Yau, Amer. Math. Soc., p. 391-400 (1993)
21. “Fibrés Plats, Images Directes et Formes de Torsion Analytique”, with J.-M. Bismut, *C. R. Acad. Sci. Paris*, t. 316, Série I, p. 477-482 (1993)
22. “Equivariant Analytic Torsion for Compact Lie Group Actions”, *J. of Funct. Anal.* 125, p. 438-451 (1994)
23. “ \mathbb{R}/\mathbb{Z} Index Theory”, *Comm. in Anal. and Geom.* 2, p. 279-311 (1994)
24. “ L^2 -Topological Invariants of 3-Manifolds”, with W. Lück, *Inventiones Math.* 120, p. 15-60 (1995)
25. “Flat Vector Bundles, Direct Images and Higher Real Analytic Torsion”, with J.-M. Bismut, *J. Amer. Math. Soc.* 8, p. 291-363 (1995)
26. “The Zero-in-the-Spectrum Question”, *L’Enseignement Mathématique* 42, p. 341-376 (1996)
27. “ L^2 -Cohomology of Geometrically Infinite Hyperbolic 3-Manifolds”, *Geom. Anal. and*

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28. “Torus Bundles and the Group Cohomology of $SL(N, Z)$ ”, with J.-M. Bismut, J. of Diff. Geom. 47, p. 196-236 (1997)

29. “Eta and Torsion”, in Symétries Quantiques, Proceedings of the 1995 Les Houches Summer School in Theoretical Physics, North Holland, Amsterdam, p. 947-955 (1998)

30. “Remark about Heat Flow on Periodic Spaces”, Proc. of the Amer. Math. Soc. 127, p. 1243-1249 (1999)

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32. “Diffeomorphisms and Noncommutative Analytic Torsion”, Mem. of the Amer. Math. Soc. 141, no. 673, viii + 56 pp. (1999)

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35. “Signatures and Higher Signatures of S^1 -Quotients”, Math. Annalen 316, p. 617-657 (2000)

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44. "Higher-Degree Analogs of the Determinant Line Bundle", *Comm. Math. Phys.* 230, p. 41-69 (2002)
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46. "Local Index Theory over Étale Groupoids", with A. Gorokhovsky, *J. Reine Angew. Math. (Crelle's Journal)* 560, p. 151-198 (2003)
47. "Remark about the Spectrum of the p -Form Laplacian Under a Collapse with Curvature Bounded Below", *Proc. of the AMS* 132, p. 911-918 (2003)
48. "Some Geometric Properties of the Bakry-Émery-Ricci Tensor", *Comm. Math. Helv.* 78, p. 865-883 (2003)
49. "Limit Sets as Examples in Noncommutative Geometry", *K-Theory* 34, p. 283-326 (2005)
50. "Local Index Theory over Foliation Groupoids", with A. Gorokhovsky, *Advances in Mathematics* 204, p. 413-447 (2006)
51. "Weak Curvature Conditions and Functional Inequalities", with C. Villani, *J. of Funct. Analysis* 245, p. 311-333 (2007)
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61. “An Index Theorem in Differential K-Theory”, with Dan Freed, *Geom. and Topology* 14, p. 903-966 (2010)

62. “Dimensional Reduction and the Long-Time Behavior of Ricci Flow”, *Comm. Math. Helv.* 85, p. 485-534

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64. “Mean Curvature Flow in a Ricci Flow Background”, *Comm. Math. Phys.* 313, p. 517-533 (2012)

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66. “Ricci Flow on Three-Dimensional Manifolds with Symmetry”, with Natasa Sesum, *Comm. Math. Helv.* 89, p. 1-32 (2014)
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68. “Locally Collapsed 3-manifolds”, with Bruce Kleiner, *Astérisque* 365, p. 7-99 (2014)
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74. “An Intrinsic Parallel Transport in Wasserstein Space”, to appear, *Proc. of the AMS*
75. “Singular Ricci Flows I”, with Bruce Kleiner, preprint
76. “A Hilbert Bundle Description of Differential K-Theory”, with Alexander Gorokhovsky, preprint
77. “On Noncollapsed Almost Ricci-flat 4-Manifolds”, with Vitali Kapovitch, preprint
78. “Collapsing in the Einstein flow”, preprint
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