

JÓZEF DODZIUK

PUBLICATIONS

1. *On measurable periodic functions*, (in Polish), *Wiadomości Matematyczne*, **XI** (1969), 13–14.
2. *Combinatorial and continuous Hodge theories*, *Bull. Amer. Math. Soc.*, **80** (1974), 1014–1016.
3. *Finite difference approach to the Hodge theory of harmonic forms*, *Amer. J. Math.*, **98** (1976), 79–104.
4. *A remark on Whitney's proof of de Rham's theorem*, *Proc. Amer. Math. Soc.*, **54** (1976), 360–362.
5. *Riemannian structures and triangulations of manifolds* (with V. K. Patodi), *J. Indian Math. Soc.*, **40** (1976), 1–52.
6. *De Rham-Hodge theory for L^2 -cohomology of infinite coverings*, *Topology*, **16** (1977), 157–165.
7. *L^2 harmonic forms on rotationally symmetric Riemannian manifolds*, *Proc. Amer. Math. Soc.*, **77** (1979), 395–400.
8. *Vanishing theorems for L^2 harmonic forms*, in *Geometry and Analysis, Papers dedicated to the memory of V. K. Patodi*, Indian Academy of Sciences and Tata Institute of Fundamental Research, Bombay 1980, 21–27.
9. *Sobolev spaces of differential forms and the de Rham-Hodge isomorphism*, *J. Differential Geometry*, **16** (1981), 63–73.
10. *Eigenvalues of the Laplacian and the heat equation*, *Amer. Math. Monthly*, **88** (1981), 686–695.
11. *L^2 harmonic forms on complete manifolds*, in *Seminar on Differential Geometry*, S.-T. Yau Ed., Princeton University Press, Princeton N. J. 1982, 291–302.
12. *L^2 isolation theorem for Yang-Mills fields over complete manifolds* (with Min-Oo), *Compositio Math.*, **47** (1982), 291–302.

13. *Eigenvalues of the Laplacian on forms*, Proc. Amer. Math. Soc., **85** (1982), 437–443.
14. *Maximum principle for parabolic inequalities and the heat flow on open manifolds*, Indiana University Math. J., **32** (1983), 703–716.
15. *Every covering of a compact Riemann surface of genus greater than one carries a nontrivial L^2 harmonic differential*, Acta Mathematica, **152** (1984), 49–56.
16. *Difference equations, isoperimetric inequality and transience of certain random walks*, Trans. Amer. Math. Soc., **284** (1984), 787–794.
17. *Laplacian on forms*, appendix to *Eigenvalues in Riemannian Geometry*, by I. Chavel, Academic Press, 1984.
18. *Laplacian on manifolds and analogous difference operator for graphs*, Contemporary Mathematics, **49** (1986), 45–49.
19. Review of *Invariance theory, the heat equation, and the Atiyah-Singer index theorem*, by P. Gilkey, Bull. Amer. Math. Soc., **14** (1986), 322–325.
20. *Lower bounds for λ_1 on a finite volume hyperbolic manifold* (with B. Randol), J. Differential Geometry, **24** (1986), 133–139.
21. *Combinatorial Laplacians and isoperimetric inequality* (with W. S. Kendall), in *From local times to global geometry, control and physics*, K. D. Ellworthy Ed., Pitman Research Notes in Mathematics Series, **150** (1986), 68–74.
22. *Estimating small eigenvalues of Riemann surfaces* (with T. Pignataro, B. Randol and D. Sullivan), Contemporary Mathematics **64** (1987), 93–121.
23. *A lower bound for the first eigenvalue of a finite-volume negatively curved manifold*, Bol. Soc. Bras. Mat., **18** (1987), 23–34.
24. *Compact Riemann surfaces of large genus with large λ_1* (with M. Burger and P. Buser), in *Geometry and Analysis on Manifolds*, T. Sunada Ed., Lecture Notes in Mathematics **1339** (1988), 54–63.

25. *Laplacian on Graphs – Spectral and Function Theory* (with L. Karp), Contemporary Mathematics, **73** (1988), 25–40.
26. *Small eigenvalues of the Laplacian on negatively curved manifolds* (with P. Buser and B. Colbois), in Differential Geometry, R. Greene and S. T. Yau, eds., Proceedings of Symposia in Pure Mathematics **54**, American Mathematical Society, Providence, Rhode Island, 1993.
27. *Tubes and eigenvalues for negatively curved manifolds* (with P. Buser and B. Colbois), J. Geometric Analysis, **3** (1993), 1–26.
28. *The spectrum of degenerating hyperbolic manifolds of three dimensions* (with I. Chavel), J. Differential Geometry, **39** (1994), 123–137.
29. *Riemannian Metrics with Large λ_1* (with B. Colbois), Proc. Amer. Math. Soc., **122** (1994), 905–906.
30. *Nonexistence of universal upper bounds for the first positive eigenvalue of the Laplace-Beltrami operator*, in Proceedings of the 1993 Joint Summer Research Conference on Spectral Geometry, Contemporary Mathematics, **173** (1994).
31. *The spectrum of the Hodge Laplacian for a degenerating family of hyperbolic three manifolds* (with J. McGowan), Trans. Amer. Math. Soc., **347** (1995), 1981–1995.
32. *La trace du noyau de la chaleur des variétés hyperboliques de dimension 3*, Séminaire de théorie spectrale et géométrie, (1995–1996), Grenoble.
33. *A C^∞ Spline Construction* (with P. Blass, T. J. Ford, J. Kolibal), Ulam Quarterly, **3** (1996), 11–19.
34. *Continuity of Spectra of Hodge-de Rham Laplacian* (with G. Baker), Math. Z., **224** (1997), 327–345.
35. *On the geometry and spectral asymptotics of degenerating hyperbolic manifolds* (with Jay Jorgenson), in “Extremal Riemann Surfaces”, Contemporary Mathematics, **201** (1997), 191–206.
36. *Approximating L^2 invariants of amenable covering spaces: A heat kernel approach* (with Varghese Mathai), in “Lipa’s Legacy”, Contemporary Mathematics, **211** (1997), 151–167.

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40. *Approximating L^2 -Invariants and the Atiyah Conjecture* (with P. Linnell, T. Schick, M. Varghese and S. Yates), *Comm. Pure Appl. Math.*, **56**, (2003), 839–873.
41. *Arithmetic properties of eigenvalues of generalized Harper operators on graphs* (with M. Varghese and S. Yates), *Comm. Math. Physics*, **262** (2006), 269–297, <http://xxx.lanl.gov/abs/math.SP/0311315>.
42. *Kato's inequality and asymptotic spectral properties for discrete magnetic Laplacians* (with M. Varghese), in "Ubiquitous Heat Kernel", *Contemporary Mathematics*, **398** (2006), 269–297, <http://xxx.lanl.gov/abs/math.SP/0312450>.
43. *Elliptic operators on infinite graphs*, in "Krzysztof Wojciechowski 50 years - Analysis and Geometry of Boundary Value Problems", World Scientific Publishing (2006), 353–368, <http://xxx.lanl.gov/abs/math.SP/0509193>.
44. *Harmonic representatives for cuspidal cohomology classes*, (with J. McGowan and P. Perry), in "Number theory, Analysis and Geometry, In memory of Serge Lang", pages 161–168, Springer, New York, 2012.
45. *The surjectivity of the combinatorial Laplacian on infinite graphs*, (with T. Ceccherini-Silberstein and M. Coornaert) *L'Enseignement Mathématique*, **58** (2012), 125–130, <http://xxx.lanl.gov/abs/1103.4901v1>.
46. *Correction to "Harmonic representatives for cuspidal cohomology classes"*, <http://xxx.lanl.gov/abs/1211.3490v1>.