

Curriculum Vitae

Name Michiel van den Berg

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Academic qualifications

M.Sc. in Physics, University of Technology, Delft, The Netherlands, 27 April 1976.

Ph.D. in Mathematics and Physical Sciences, University of Groningen, The Netherlands, 27 February 1981.

Previous appointments

Research worker, Department of Theoretical Physics, University of Technology, Delft, October 1976 - December 1976.

Research worker, Netherlands Organization for the Advancement of Pure Research, Groningen, January 1977 - June 1981.

Research worker, Department of Mathematics and System Engineering, Koninklijke Shell Laboratorium, Amsterdam, September 1981 - May 1982.

Assistant Professor, School of Theoretical Physics, Institute for Advanced Studies, Dublin, October 1982 - September 1984.

Lecturer, Department of Mathematics, Heriot-Watt University, Edinburgh, October 1984 - July 1988.

Reader, Department of Mathematics, Heriot-Watt University, Edinburgh, August 1988 - July 1992.

Professor, Department of Mathematics, Heriot-Watt University, Edinburgh, August 1992 - December 1995.

Professor of Pure Mathematics, School of Mathematics, University of Bristol, January 1996 - August 2017.

Professor Emeritus, School of Mathematics, University of Bristol, September 2017 -

Awards and Fellowships

Leverhulme Trust Research Fellowship 2000/0299

Leverhulme Trust Research Fellowship 2008/0368

Leverhulme Trust Emeritus Fellowship EM-2018-011-9

Publications

- (132) M. van den Berg, D. Bucur, *On the torsion function for simply connected, open sets in \mathbb{R}^2* , submitted.
- (131) M. van den Berg, D. Bucur, *On localisation of eigenfunctions of the Laplace operator*, submitted.
- (130) M. van den Berg, *On some isoperimetric inequalities for the Newtonian capacity*, Communications in Contemporary Mathematics, to appear.
- (129) M. van den Berg, *Localisation for the torsion function and first Dirichlet eigenfunction*, Oberwolfach Reports **36**, 2041–2044 (2023).
- (128) M. van den Berg, A. Malchiodi, *On some variational problems involving capacity, torsional rigidity, perimeter and measure*, Advances in Calculus of Variations **16**, 961–974 (2023).
- (127) M. van den Berg, D. Bucur, T. Kappeler, *On efficiency and localisation for the torsion function*, Potential Analysis **57**, 571–600 (2022).
- (126) M. van den Berg, H. Aikawa, J. Masamune, *Intrinsic ultracontractivity for domains in negatively curved manifolds*, Computational Mathematics and Function Theory **21**, 797–824 (2021).
- (125) M. van den Berg, T. Kappeler, *Localization for the torsion function and the strong Hardy inequality*, Mathematika **67**, 514–531 (2021).
- (124) M. van den Berg, G. Buttazzo, *On capacity and torsional rigidity*, Bulletin of the London Mathematical Society **53**, 347–359 (2021).
- (123) M. van den Berg, T. Carroll, *On the torsion function with mixed boundary conditions*, Potential Analysis **55**, 277–284 (2021).
- (122) M. van den Berg, G. Buttazzo, A. Pratelli, *On relations between principal eigenvalue and torsional rigidity*, Communications in Contemporary Mathematics **23**, 2050093 (2021).
- (121) M. van den Berg, F. Della Pietra, G. di Blasio, N. Gavitone, *Efficiency and localisation for the first Dirichlet eigenfunction*, Journal of Spectral Theory **11**, 981–1003 (2021).
- (120) M. van den Berg, P. Gilkey, K. Gittins, *Heat flow from polygons*, Potential Analysis **53**, 1043–1062 (2020).
- (119) M. van den Berg, V. Ferone, C. Nitsch, C. Trombetti, *On a Pólya functional for rhombi, isosceles triangles, and thinning convex sets*, Revista Matemática Iberoamericana **36**, 2091–2105 (2020).
- (118) M. van den Berg, D. Bucur, *Sign changing solutions of Poisson’s equation*, Proceedings of the London Mathematical Society **121**, 513–536 (2020).
- (117) M. van den Berg, T. Kappeler, *On the L^p norm of the torsion function*, Ricerche di Matematica, **68**, 399–414 (2019).

- (116) M. van den Berg, *Heat content in non-compact Riemannian manifolds*, Integral Equations and Operator Theory **90**, 8 (2018).
- (115) M. van den Berg, F. den Hollander, *Torsional rigidity for cylinders with a Brownian fracture*, Bulletin of the London Mathematical Society **50**, 321–339 (2018).
- (114) M. van den Berg, E. Bolthausen, F. den Hollander, *Torsional rigidity for regions with a Brownian boundary*, Potential Analysis **48**, 375–403 (2018).
- (113) M. van den Berg, *Spectral bounds for the torsion function*, Integral Equations and Operator Theory **88**, 387–400 (2017).
- (112) M. van den Berg, K. Gittins, *Minimizing Dirichlet eigenvalues on cuboids of unit measure*, Mathematika **63**, 469–482 (2017).
- (111) M. van den Berg, K. Gittins, *On the number of Courant-sharp Dirichlet eigenvalues*, Journal of Spectral Theory **6**, 735–745 (2016).
- (110) M. van den Berg, V. Ferone, C. Nitsch, C. Trombetti, *On Pólya’s inequality for torsional rigidity and first Dirichlet eigenvalue*, Integral Equations and Operator Theory **86**, 579–600 (2016).
- (109) M. van den Berg, D. Bucur, K. Gittins, *Maximising Neumann eigenvalues on rectangles*, Bulletin of the London Mathematical Society **48**, 877–894 (2016).
- (108) M. van den Berg, K. Gittins, *On the heat content of a polygon*, Journal of Geometric Analysis, Journal of Geometric Analysis **26**, 2231–2264 (2016).
- (107) M. van den Berg, G. Buttazzo, B. Velichkov, *Optimization problems involving the first Dirichlet eigenvalue and the torsional rigidity*, in New Trends in Shape Optimization, Int. Series Numerical Math. Eds. A. Pratelli, G. Leugering (Birkhäuser) **166**, 19–41 (2016).
- (106) M. van den Berg, R. Hempel, J. Voigt, *L_1 -Estimates for eigenfunctions of the Dirichlet Laplacian*, Journal of Spectral Theory **5**, 829–857 (2015).
- (105) M. van den Berg, P. Gilkey, *Heat flow out of a compact manifold*, Journal of Geometric Analysis **25**, 1576–1601 (2015).
- (104) M. van den Berg, K. Gittins, *Uniform bounds for the heat content of open sets in Euclidean space*, Differential Geometry and its Applications **40**, 67–85 (2015).
- (103) M. van den Berg, *On the minimization of Dirichlet eigenvalues*, Bulletin of the London Mathematical Society **47**, 143–155 (2015).
- (102) M. van den Berg, P. Gilkey, *Heat content with singular initial temperature and singular specific heat*, Potential Analysis **42**, 1–38 (2015).
- (101) M. van den Berg, E. B. Dryden, T. Kappeler, *Isospectrality and heat content*, Bulletin of the London Mathematical Society **46**, 793–808 (2014).

- (100) M. van den Berg, E. Bolthausen, F. den Hollander, *Heat content and inradius for regions with a Brownian boundary*, Potential Analysis **41**, 501–515 (2014).
- (99) M. van den Berg, D. Bucur, *On the torsion function with Robin or Dirichlet boundary conditions*, Journal of Functional Analysis **266**, 1647–1666 (2014).
- (98) M. van den Berg, P. Gilkey, H. Kang, *Neumann heat content asymptotics with singular initial temperature and singular specific heat*, Journal of Fixed Point Theory and Applications **14**, 267–298 (2013).
- (97) M. van den Berg, *Heat flow and perimeter in \mathbb{R}^m* , Potential Analysis **39**, 369–387 (2013).
- (96) M. van den Berg, *On Rayleigh’s formula for the first Dirichlet eigenvalue of a radial perturbation of a ball*, Journal of Geometric Analysis **23**, 1427–1440 (2013).
- (95) M. van den Berg, M. Iversen, *On the minimization of Dirichlet eigenvalues of the Laplace operator*, Journal of Geometric Analysis **23**, 660–676 (2013).
- (94) M. van den Berg, P. Gilkey, *Heat content asymptotics with singular data*, Journal of Physics A: Math. Theor. **45**, 374027 (2012).
- (93) M. van den Berg, P. Gilkey, A. Grigor’yan, K. Kirsten, *Hardy inequality and heat semigroup estimates for Riemannian manifolds with singular data*, Communications in Partial Differential Equations **37**, 885–900 (2012).
- (92) M. van den Berg, *Estimates for the torsion function and Sobolev constants*, Potential Analysis **36**, 607–616 (2012).
- (91) M. van den Berg, P. Gilkey, K. Kirsten, *Heat trace asymptotics with singular weight functions II*, Journal of Geometric Analysis **21**, 870–901 (2011).
- (90) M. van den Berg, P. Gilkey, K. Kirsten, *Growth of heat trace and heat content asymptotic coefficients*, Journal of Functional Analysis **261**, 2293–2322 (2011).
- (89) M. van den Berg, *On the volume of the intersection of two independent Wiener sausages*, Potential Analysis **34**, 57–79 (2011).
- (88) M. van den Berg, *On the volume of intersection of three independent Wiener sausages*, Annales de L’Institut Henri Poincaré, B. Probabilités et Statistiques **46**, 313–337 (2010).
- (87) M. van den Berg, T. Carroll, *Hardy inequality and L^p estimates for the torsion function*, Bulletin of the London Mathematical Society **41**, 980–986 (2009).
- (86) M. van den Berg, P. Gilkey, K. Kirsten, R. Seeley, *Heat trace asymptotics with singular weight functions*, Communications in Analysis and Geometry **17**, 529–563 (2009).

- (85) M. van den Berg, *Hardy inequality and weighted heat trace*, Potential Analysis **30**, 201–209 (2009).
- (84) M. van den Berg, P. B. Gilkey, R. Seeley, *Heat content asymptotics with singular initial temperature distributions*, Journal of Functional Analysis **254**, 3093–3122 (2008).
- (83) M. van den Berg, *Heat flow and Hardy inequality in complete Riemannian manifolds with singular initial conditions*, Journal of Functional Analysis **250**, 114–131 (2007).
- (82) M. van den Berg, P. Gilkey, *Expected volume of intersection of pinned Wiener sausages and heat kernel norms on compact Riemannian manifolds with boundary*, Potential Analysis **27**, 301–312 (2007).
- (81) M. van den Berg, A. Dall’Acqua, G. H. Sweers, *Estimates for the expected lifetime of conditioned Brownian motion*, Proceedings of the Royal Society of Edinburgh **137A**, 1091–1099 (2007).
- (80) M. van den Berg, P. Gilkey, K. Kirsten, V. A. Kozlov, *Heat content asymptotics for Riemannian manifolds with Zaremba boundary conditions*, Potential Analysis **26**, 225–254 (2007).
- (79) M. van den Berg, *Heat flow, Brownian motion and Newtonian capacity*, Annales de L’Institut Henri Poincaré, B. Probabilités et Statistiques **43**, 193–214 (2007).
- (78) M. van den Berg, *Heat content and Hardy inequality for complete Riemannian manifolds*, Journal of Functional Analysis **233**, 478–493 (2006).
- (77) M. van den Berg, E. Bolthausen, F. den Hollander, *Brownian survival among Poissonian traps with random shapes at critical intensity*, Probability Theory and Related Fields **132**, 163–202 (2005).
- (76) M. van den Berg, *Exit and return of a simple random walk*, Potential Analysis **23**, 45–53 (2005).
- (75) M. van den Berg, *On the expected volume of intersection of independent Wiener sausages and the asymptotic behaviour of some related integrals*, Journal of Functional Analysis **222**, 114–128 (2005).
- (74) M. van den Berg, P. B. Gilkey, *Heat content and a Hardy inequality for complete Riemannian manifolds*, Bulletin of the London Mathematical Society **36**, 577–586 (2004).
- (73) M. van den Berg, E. Bolthausen, *Area versus capacity and solidification in the crushed ice model*, Probability Theory and Related Fields **130**, 69–108 (2004).
- (72) M. van den Berg, E. Bolthausen, F. den Hollander, *On the volume of the intersection of two Wiener sausages*, Annals of Mathematics **159**, 741–782 (2004).
- (71) M. van den Berg, *Asymptotics of the heat exchange*, Journal of Functional Analysis **206**, 379–390 (2004).

- (70) M. van den Berg, *Subexponential behaviour of the Dirichlet heat kernel*, Journal of Functional Analysis **198**, 28–42 (2003).
- (69) M. van den Berg, *Heat content of a Riemannian manifold with a perfect conducting boundary*, Potential Analysis **19**, 89–98 (2003).
- (68) M. van den Berg, R. Bañuelos, T. Carroll, *Torsional rigidity and expected lifetime of Brownian motion*, Journal of the London Mathematical Society (2) **66**, 499–512 (2002).
- (67) M. van den Berg, *Area versus capacity and independence in the crushed ice model*, Journal of Functional Analysis **189**, 242–266 (2002).
- (66) M. van den Berg, *A vanishing theorem for the heat content of a Riemannian manifold*, Bulletin of the London Mathematical Society **33**, 743–748 (2001).
- (65) M. van den Berg, M. Lianantonakis, *Asymptotics for the spectrum of the Dirichlet Laplacian on horn-shaped regions*, Indiana University Mathematics Journal **50**, 299–333 (2001).
- (64) M. van den Berg, E. Bolthausen, F. den Hollander, *Moderate deviations for the volume of the Wiener sausage*, Annals of Mathematics **153**, 355–406 (2001).
- (63) M. van den Berg, P. Gilkey, *Heat content asymptotics with inhomogeneous Neumann and Dirichlet boundary conditions*, Potential Analysis **14**, 269–274 (2001).
- (62) M. van den Berg, *On the L^∞ Norm of the first eigenfunction of the Dirichlet Laplacian*, Potential Analysis **13**, 361–366 (2000).
- (61) M. van den Berg, *Renewal equation for the heat equation of an arithmetic von Koch snowflake*, in Infinite Dimensional Stochastic Analysis, Koninklijke Nederlandse Akademie van Wetenschappen, Verhandelingen, Afd. Naturkunde, Eerste Reeks **52**, 25–37 (2000).
- (60) M. van den Berg, *Heat equation on the arithmetic von Koch snowflake*, Probability Theory and Related Fields **118**, 17–36 (2000).
- (59) M. van den Berg, P. Gilkey, *The heat content asymptotics of a time-dependent process*, Proceedings of the Royal Society of Edinburgh **130A**, 307–312 (2000).
- (58) M. van den Berg, E. Bolthausen, *Estimates for Dirichlet eigenfunctions*, Journal of the London Mathematical Society (2) **59**, 607–619 (1999).
- (57) M. van den Berg, S. P. Watson, *Asymptotics for the spectral heat function and bounds for integrals of Dirichlet eigenfunctions*, Proceedings of the Royal Society of Edinburgh **129A**, 841–854 (1999).
- (56) M. van den Berg, P. B. Gilkey, *The heat equation with inhomogeneous Dirichlet boundary conditions*, Communications in Analysis and Geometry **7**, 279–294 (1999).

- (55) M. van den Berg, F. den Hollander, *Asymptotics for the heat content of a planar region with a fractal polygonal boundary*, Proceedings of the London Mathematical Society (3) **78**, 627–661 (1999).
- (54) M. van den Berg, *Heat content asymptotics for planar regions with cusps*, Journal of the London Mathematical Society (2) **57**, 677–693 (1998).
- (53) M. van den Berg, P. B. Gilkey, *A comparison estimate for the heat equation with an application to the heat content of the s -adic von Koch snowflake*, Bulletin of the London Mathematical Society **30**, 404–412 (1998).
- (52) M. van den Berg, E. Bolthausen, *On the expected volume of the Wiener sausage for a Brownian bridge*, Mathematische Zeitschrift **224**, 33–48 (1997).
- (51) M. van den Berg, M. Levitin, *Functions of Weierstrass type and spectral asymptotics for iterated sets*, Quarterly Journal of Mathematics Oxford (2) **47**, 493–509, (1996).
- (50) M. van den Berg, R. Bañuelos, *Dirichlet eigenfunctions for horn-shaped regions and Laplacians on cross sections*, Journal of the London Mathematical Society (2) **53**, 503–511 (1996).
- (49) M. van den Berg, P. B. Gilkey, *Heat invariants for odd-dimensional hemispheres*, Proceedings of the Royal Society of Edinburgh **126A**, 187–193 (1996).
- (48) M. van den Berg, *Heat content asymptotics for some open sets with a fractal boundary*, Proceedings of Symposia in Pure Mathematics **57**, 11–22 (1995).
- (47) M. van den Berg, *Heat content and Brownian motion for some regions with a fractal boundary*, Probability Theory and Related Fields **100**, 439–456 (1994).
- (46) M. van den Berg, E. Bolthausen, *Asymptotics of the generating function for the volume of the Wiener sausage*, Probability Theory and Related Fields **99**, 389–397 (1994).
- (45) M. van den Berg, J.- F. Le Gall, *Mean curvature and the heat equation*, Mathematische Zeitschrift **215**, 437–464 (1994).
- (44) M. van den Berg, P. B. Gilkey, *Heat content asymptotics of a Riemannian manifold with boundary*, Journal of Functional Analysis **120**, 48–71 (1994).
- (43) M. van den Berg, S. Desjardins, P. Gilkey, *Functoriality and heat content asymptotics for operators of Laplace type*, Topological Methods in Nonlinear Analysis **2**, 147–162 (1993).
- (42) M. van den Berg, S. Desjardins, P. B. Gilkey, *Heat content asymptotics of Riemannian manifolds*, Proceedings 5th International Conference on Differential Geometry and Its Applications, Mathematical Publications Silesian University at Opava **1**, 61–64 (1993).

- (41) M. van den Berg, T. C. Dorlas, V. B. Priezzhev, *The Boson gas on a Cayley tree*, Journal of Statistical Physics **69**, 307–328 (1992).
- (40) M. van den Berg, *On the ratio of odd and even spectral counting functions*, Operator Theory: Advances and Applications **57**, 321–328 (1992).
- (39) M. van den Berg, *A gaussian lower bound for the Dirichlet heat kernel*, Bulletin of the London Mathematical Society **24**, 475–477 (1992).
- (38) M. van den Berg, *On the spectral counting function for the Dirichlet Laplacian*, Journal of Functional Analysis **107**, 352–361 (1992).
- (37) M. van den Berg, *Dirichlet-Neumann bracketing for horn-shaped regions*, Journal of Functional Analysis **104**, 110–120 (1992).
- (36) M. van den Berg, *On the trace of the difference of Schrödinger heat semi-groups*, Proceedings of the Royal Society of Edinburgh **119A**, 169–175 (1991).
- (35) M. van den Berg, *Heat equation on a hemisphere*, Proceedings of the Royal Society of Edinburgh **118A**, 5–12 (1991).
- (34) M. van den Berg, B. Tóth, *Exponential estimates for the Wiener sausage*, Probability Theory and Related Fields **88**, 249–259, (1991).
- (33) M. van den Berg, S. Srisatkunrajah, *Heat flow and Brownian motion for a region in \mathbb{R}^2 with a polygonal boundary*, Probability Theory and Related Fields **86**, 41–52 (1990).
- (32) M. van den Berg, *Large time asymptotics of the heat flow*, Quarterly Journal of Mathematics Oxford (2) **41**, 245–253 (1990).
- (31) M. van den Berg, T. C. Dorlas, J. T. Lewis, J. V. Pulè, *The pressure in the Huang-Yang-Luttinger model of an interacting boson gas*, Communications in Mathematical Physics **128**, 231–245 (1990).
- (30) M. van den Berg, *Gaussian bounds for the Dirichlet heat kernel*, Journal of Functional Analysis **88**, 267–278 (1990).
- (29) M. van den Berg, T. C. Dorlas, J. T. Lewis, J. V. Pulè, *A perturbed mean field model of an interacting boson gas and the large deviation principle*, Communications in Mathematical Physics **127**, 41–69 (1990).
- (28) M. van den Berg, E. B. Davies, *Heat flow out of regions in \mathbb{R}^m* , Mathematische Zeitschrift **202**, 463–482 (1989).
- (27) M. van den Berg, *Heat equation and the principle of not feeling the boundary*, Proceedings of the Royal Society of Edinburgh **112A**, 257–262 (1989).
- (26) M. van den Berg, J. T. Lewis, J. V. Pulé, *Large deviations and the boson gas*, Springer Lecture Notes in Mathematics **1325**, 24–39 (1988).
- (25) M. van den Berg, J. T. Lewis, *Limit theorems for stochastic processes associated with a boson gas*, Springer Lecture Notes in Mathematics **1325**, 16–23 (1988).

- (24) M. van den Berg, J. T. Lewis, J. V. Pulé, *The large deviation principle and some models of an interacting boson gas*, Communications in Mathematical Physics **118**, 61–85 (1988).
- (23) M. van den Berg, S. Srisatkunarakajah, *Heat equation for a region in \mathbb{R}^2 with a polygonal boundary*, Journal of the London Mathematical Society (2) **37**, 119–127 (1988).
- (22) M. van den Berg, *On traces associated with the Dirichlet Laplacian*, Journal of Mathematical Analysis and Applications **126**, 176–185 (1987).
- (21) M. van den Berg, J. T. Lewis, *On the asymptotics of a Wiener integral*, Proceedings of the Royal Society of Edinburgh **105A**, 195–198 (1987).
- (20) M. van den Berg, *On the asymptotics of the heat equation and bounds on traces associated with the Dirichlet Laplacian*, Journal of Functional Analysis **71**, 279–293 (1987).
- (19) M. van den Berg, J. T. Lewis, M. Lunn, *On the general theory of Bose-Einstein condensation and the state of the free boson gas*, Helvetica Physica Acta **59**, 1289–1310 (1986).
- (18) M. van den Berg, J. T. Lewis, J. V. Pulé, *A general theory of Bose-Einstein condensation*, Helvetica Physica Acta **59**, 1271–1288 (1986).
- (17) M. van den Berg, *On a classical two-component plasma with a logarithmic interaction*, Proceedings of The Royal Society of Edinburgh **101A**, 187–192 (1985).
- (16) M. van den Berg, J. T. Lewis, *Brownian motion on a hypersurface*, Bulletin of the London Mathematical Society **17**, 144–150 (1985).
- (15) M. van den Berg, J. T. Lewis, Ph. de Smedt, *Condensation in the imperfect boson gas*, Journal of Statistical Physics **37**, 697–707 (1984).
- (14) M. van den Berg, *On the spectrum of the Dirichlet Laplacian for horn-shaped regions in R^n with infinite volume*, Journal of Functional Analysis **58**, 150–156 (1984).
- (13) M. van den Berg, *A uniform bound on trace $(e^{t\Delta})$ for convex regions in R^n with smooth boundaries*, Communications in Mathematical Physics **92**, 525–530 (1984).
- (12) M. van den Berg, J. L. van Hemmen, *On a neutral plasma with quadratic interactions*, Journal of Physics A: Math. Gen. **17**, 169–174 (1984).
- (11) M. van den Berg, *On finite volume corrections to the equation of state of a free Bose gas*, Helvetica Physica Acta **56**, 1151–1157 (1983).
- (10) M. van den Berg, *On condensation in the free-boson gas and the spectrum of the Laplacian*, Journal of Statistical Physics **31**, 623–637 (1983).
- (9) M. van den Berg, J. T. Lewis, *On generalized condensation in the free boson gas*, Physica **110A**, 550–564 (1982).

- (8) M. van den Berg, *On boson condensation into an infinite number of low-lying levels*, Journal of Mathematical Physics **23**, 1159–1161 (1982).
- (7) M. van den Berg, *On non-analytic thermodynamic behaviour of the classical linear chain*, Physica **108A**, 169–179 (1981).
- (6) M. van den Berg, J. T. Lewis, *On the free boson gas in a weak external potential*, Communications in Mathematical Physics **81**, 475–494 (1981).
- (5) M. van den Berg, *Bounds on Green's functions of second-order differential equations*, Journal of Mathematical Physics **22**, 2452–2455 (1981).
- (4) M. van den Berg, *On a classical two-component plasma with a quadratic interaction*, Physics Letters **82A**, 241–243 (1981).
- (3) M. van den Berg, *The Casimir effect in two dimensions*, Physics Letters **81A**, 219–222 (1981).
- (2) M. van den Berg, *On the free boson gas in a weak external potential*, Physics Letters **78A**, 88–90 (1980).
- (1) M. van den Berg, Th. Niemeijer, *The zero-distribution of the great partition function in the complex fugacity plane of gases of point particles with logarithmic interaction*, Physica **85A**, 186–192 (1976).

Invited talks

- 292. On some isoperimetric inequalities for the Newtonian capacity, Colloquium in honor of Professor Catherine Bandle, Karlsruher Institut für Technologie, 13.3.2024.
- 291. On some isoperimetric inequalities for the Newtonian capacity, Conference New Frontiers in Probability, University of Leiden, 28.9.2023.
- 290. Maximising the product of torsional rigidity and Newtonian capacity among convex sets with a perimeter constraint, Conference Shape Optimization, Isoperimetric and Functional Inequalities, Levico Terme, Italy, 18.9.2023.
- 289. Localisation for the torsion function and first Dirichlet eigenfunction, Workshop Geometric Spectral Theory, Mathematisches Forschungsinstitut Oberwolfach, 25.8.2023.
- 288. On some isoperimetric inequalities for the Newtonian capacity, Analysis and PDE Seminar, University of Durham, 15.6.2023.
- 287. Localisation for the torsion function and first Dirichlet eigenfunction, Conference Analysis and Hamiltonian PDEs: remembering Thomas Kappeler, University of Zürich, 5.6.2023.
- 286. Localisation for the torsion function and first Dirichlet eigenfunction, Spectral Geometry and Applications, On the occasion of Michael Levitin's 60'th birthday, Université Laval, Québec, 9.5.2023.
- 285. On some variational problems involving capacity, torsional rigidity, perimeter and measure, Workshop Shape Optimisation and Geometric Spectral Theory, ICMS Edinburgh, 20.9.2022.

- 284. Localisation for the torsion function and first Dirichlet eigenfunction, Conference Probability, Analysis and Dynamics, Bristol, 6.4.2022.
- 283. Localisation for the torsion function and first Dirichlet eigenfunction, Dortmund-Hagen-Wuppertal-Analysis-Treffen, Fern Universität Hagen, 17.11.2021.
- 282. Localisation for the torsion function and first Dirichlet eigenfunction, Two Day Meeting Spectral theory and partial differential equations, University of Durham, 16.9.2021.
- 281. Efficiency and localisation for the first Dirichlet eigenfunction, Scuola Normale Superiore, Pisa, 8.1.2020.
- 280. Efficiency and localisation for the first Dirichlet eigenfunction, Conference Shape Optimization, Isoperimetric and Functional Inequalities, Levico Terme, Italy, 23.9.2019.
- 279. Heat content and torsion function in non-compact Riemannian manifolds, Workshop Asymptotic patterns and symmetry, Swansea University, 10.6.2019.
- 278. Heat content and torsion function in non-compact Riemannian manifolds, VI Italian-Japanese Workshop Geometric properties for parabolic and elliptic PDE's, Cortona, Italy, 23.5.2019.
- 277. Efficiency and localisation for the first Dirichlet eigenfunction, Spectral Theory and Geometry, Two-day Meeting, University of Bristol, 14.5.2019.
- 276. Applications of Brownian motion techniques to elliptic and parabolic pde, Shape optimization, control and inverse problems for PDE's, INDMAM Intensive Period, Università degli Studi di Napoli Federico II, 6.5.2019.
- 275. Sign changing solutions of Poisson's equation, Conference Potential Analysis and its Related Fields 2019, Hokkaido University, Sapporo, 13.2.2019.
- 274. Sign changing solutions of Poisson's equation, Results in Contemporary Mathematical Physics, Conference in honor of Rafael Benguria, P. Universidad Católica de Chile, Santiago, Chile, 17.12.2018.
- 273. Sign changing solutions of Poisson's equation, Université de Neuchâtel, 20.11.2018.
- 272. Sign changing solutions of Poisson's equation, University College Cork, 6.11.2018.
- 271. Sign changing solutions of Poisson's equation, Conference Calculus of Variations and Geometric Measure Theory at Sussex, University of Sussex, 2.7.2018.
- 270. Sign changing solutions of Poisson's equation, Max Planck Institute for Mathematics, Bonn, 14.6.2018.
- 269. Optimal inequalities for L^p norms of the torsion function, Cologne Conference on Positivity and Differential Equations, Universität zu Köln, 22.5.2018.

- 268. Sign changing solutions of Poisson's equation, Università degli Studi di Napoli Federico II, 18.4.2018.
- 267. On the spectrum of the Laplace Operator, Colloquium, University of Leiden, 8.3.2018.
- 266. Optimal inequalities for L^p norms of the torsion function, Université de Savoie, Le-Bourget-du-Lac, 9.2.2018.
- 265. Spectral bounds for the torsion function and torsional rigidity, Cardiff University, 4.12.2017.
- 264. Spectral bounds for the torsion function and torsional rigidity, University of Zürich, 26.10.2017.
- 263. Spectral bounds for the torsion function and torsional rigidity, Workshop Geometric Analysis, Roscoff, 11.10.2017.
- 262. Spectral bounds for the torsion function and torsional rigidity, Conference Potential Analysis and its Related Fields 2017, Hokkaido University, Sapporo, 21.9.2017.
- 261. Spectral bounds for the torsion function, Conference Geometric Spectral Theory, Université de Neuchâtel, 21.6.2017.
- 260. Spectral bounds for the torsion function, Università degli Studi di Napoli Federico II, 7.6.2017.
- 259. Spectral bounds for the torsion function, Imperial College, London, 18.5.2017.
- 258. On Pólya's inequality for torsional rigidity and first Dirichlet eigenvalue, Workshop Guided Tour: Random media, Special occasion to celebrate the 60th birthday of Frank den Hollander, Eurandom, Eindhoven, 14.12.2016.
- 257. On Pólya's inequality for torsional rigidity and first Dirichlet eigenvalue, Conference Shape Optimization, Isoperimetric and Functional Inequalities, Centre International de Rencontres Mathématiques, Luminy, 21.11.2016.
- 256. On Pólya's inequality for torsional rigidity and first Dirichlet eigenvalue, Workshop on Stochastic Processes in honour of Erwin Bolthausen's 70th birthday, University of Zürich, 15.9.2016.
- 255. On Pólya's inequality for torsional rigidity and first Dirichlet eigenvalue, Meeting on Computational and Analytic Problems in Spectral Geometry, Cardiff University, 6.6.2016.
- 254. On the heat content of a polygon, Spectral Geometry Conference, Fifty Years of Hearing Drums: Spectral Geometry and the legacy of Mark Kac, P. Universidad Católica de Chile, Santiago, Chile 19.5.2016.
- 253. Remainder estimates in Weyl's theorem, Università degli Studi di Napoli Federico II, 4.5.2016.

- 252. Optimization problems involving the first Dirichlet eigenvalue and the torsional rigidity, Université de Savoie, Le-Bourget-du-Lac, 11.9.2015.
- 251. Heat flow in Riemannian manifolds with non-negative Ricci curvature, Workshop Stochastics and Interactions - a conference in honor of Balint Tóth's 60th birthday, Technical University of Budapest, 21.7.2015.
- 250. Heat flow in Riemannian manifolds with non-negative Ricci curvature, Università degli Studi di Napoli Federico II, 3.6.2015.
- 249. Heat flow in Riemannian manifolds, Breaking boundaries between Analysis, Geometry and Topology, University of Sussex, 15.4.2015.
- 248. Heat flow in Riemannian manifolds, Workshop Laplacians and Heat Kernels: Theory and Applications, Banff International Research Station, 23.3.2015.
- 247. Heat flow out of open sets in Euclidean space, Harmonic Analysis/PDEs Workshop, University of Birmingham, 11.3.2015.
- 246. Heat flow in Riemannian manifolds, Yorkshire and Durham Geometry Day, University of Durham, 6.3.2015.
- 245. Minimization of Dirichlet eigenvalues, The Paris-London Analysis Seminar, University College London, 10.10.2014.
- 244. Minimization of Dirichlet eigenvalues, Universität zu Köln, 22.9.2014.
- 243. Heat flow and perimeter in Euclidean Space, ICM 2014 Satellite Conference on Geometric Analysis, Sungkyunkwan University, Suwon, Korea, 22.8.2014.
- 242. Minimization of Dirichlet eigenvalues, University of Leiden, 8.5.2014.
- 241. Minimization of Dirichlet eigenvalues, Meeting on Free Boundary Problems and Related Topics, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, 15.1.2014.
- 240. Minimization of Dirichlet eigenvalues, Memorial Workshop for Vitali Liskovich, Swansea University, 28.9.2013.
- 239. Minimization of Dirichlet eigenvalues, Workshop in New Trends in Shape Optimization, Friedrich-Alexander Universität Erlangen-Nürnberg, 26.9.2013.
- 238. Heat content and Hardy inequality, Workshop on Spectral Theory and Geometry, Université de Neuchâtel, 3.6.2013, 4.6.2013.
- 237. Heat flow and perimeter in \mathbb{R}^m , University of Leiden, 11.4.2013.
- 236. Heat flow and perimeter in \mathbb{R}^m , University of Loughborough, 7.2.2013.
- 235. Heat flow and perimeter in \mathbb{R}^m , Otto von Guericke Universität Magdeburg, 18.9.2012.

- 234. Heat flow and perimeter in \mathbb{R}^m , Technische Universität Braunschweig, 17.9.2012.
- 233. Heat equation and torsion function, Conference on Operator Semigroup Theory, Swansea University, 25.6.2012.
- 232. Heat equation and torsion function, Conference Shape optimization problems and spectral theory, Centre International de Rencontres Mathématiques, Luminy, 1.6.2012.
- 231. Heat content and Hardy inequality, Université de Savoie, Le-Bourget-du-Lac, 24.2.2012.
- 230. Heat content and Hardy inequality, University of Oregon, Eugene, Oregon, 7.2.2012.
- 229. Heat flow and spectrum for regions with a Brownian boundary, Conference New Trends in Modern Analysis: Probabilistic and Analytical Methods in PDE's and Spectral Theory, Hammamet, Tunisia, 23.11.2011.
- 228. Minimization of Dirichlet eigenvalues, Journée théorie spectrale à Bordeaux, University of Bordeaux I, 17.11.2011.
- 227. Minimization of Dirichlet eigenvalues with geometric constraints, Conference Mathematical Physics, Spectral Theory, and Stochastic Analysis, Goslar, Germany, 13.9.2011.
- 226. Minimization of Dirichlet eigenvalues, Conference Partial differential equations and spectral theory, Imperial College, London, 7.9.2011.
- 225. Minimization of Dirichlet eigenvalues with geometric constraints, University of Pavia, 17.5.2011.
- 224. Heat flow and spectrum for regions with a Brownian boundary, University of Oregon, Eugene, Oregon, 5.4.2011.
- 223. Heat flow and spectrum for regions with a Brownian boundary, Workshop Selected Topics in Spectral Theory, Erwin Schrödinger Institut, Vienna, 20.1.2011.
- 222. Asymptotics of the heat exchange, Conference Geometry and Global Analysis, Santiago de Compostela, 13.12.2010.
- 221. Asymptotics of the heat exchange and some conjectures of M V Berry, Conference Excess self-intersection local times and Related Topics, Centre International de Rencontres Mathématiques, Luminy, 7.12.2010.
- 220. Minimization of Dirichlet eigenvalues with geometric constraints, Conference Probabilistic Methods in Statistical Physics, Technische Universität Berlin, 14.10.2010.
- 219. Minimization of Dirichlet eigenvalues with geometric constraints, Topics in Spectral and Scattering Theory, Pennsylvania State University, University Park, State College, Pennsylvania, 9.8.2010.

- 218. Minimization of Dirichlet eigenvalues with geometric constraints, University College Cork, 24.3.2010.
- 217. Minimization of Dirichlet eigenvalues with geometric constraints, University of Oregon, Eugene, Oregon, 9.2.2010.
- 216. Minimization of Dirichlet eigenvalues with geometric constraints, Universität Bielefeld, 2.10.2009.
- 215. Minimization of Dirichlet eigenvalues with geometric constraints, Workshop Selected Topics in Spectral Theory, Erwin Schrödinger Institut, Vienna, 11.5.2009.
- 214. Minimization of Dirichlet eigenvalues with geometric constraints, University of Bath, 8.5.2009.
- 213. Minimization of Dirichlet eigenvalues with geometric constraints, Workshop on Mathematical Analysis and Modern Applications, Swansea University, 23.4.2009.
- 212. Minimization of Dirichlet eigenvalues with geometric constraints, Conference on Quantum Mechanics and Randomness, University College Dublin, 21.3.2009.
- 211. Minimization of Dirichlet eigenvalues with geometric constraints, Universität Zürich, 4.3.2009.
- 210. Minimization of Dirichlet eigenvalues with geometric constraints, University College, London, 25.11.2008.
- 209. Hardy inequality and weighted heat trace, University College Cork, 2.10.2008.
- 208. Hardy inequality and weighted heat trace, International Conference on Partial Differential equations and Spectral Theory, Goslar, Germany, 1.9.2008.
- 207. Hardy inequality, heat content and heat trace for regions in complete Riemannian manifolds, PDE Day, University of Sussex, 28.5.2008.
- 206. Hardy inequality and weighted L^1 estimates for the Dirichlet heat kernel, Universität zu Köln, 9.4.2008.
- 205. Hardy inequality and weighted L^1 estimates for the Dirichlet heat kernel, University of Birmingham, 12.3.2008.
- 204. Hardy inequality and weighted L^1 estimates for the Dirichlet heat kernel, University of Oregon, Eugene, Oregon, 26.2.2008.
- 203. Hardy inequality and weighted L^1 estimates for the Dirichlet heat kernel, Swansea University, 14.2.2008.
- 202. On the heat equation with singular initial data, Workshop on Random Walks, Particle Systems and Random Media, Santiago, Chile, 14.1.2008.

201. On the heat equation with singular initial data, Workshop Partial Differential Equations and Spectral Theory, Erwin Schrödinger Institut, Vienna, 17.12.2007.
200. Heat flow and Hardy inequality in complete Riemannian manifolds with singular initial conditions, Universität Bielefeld, 5.6.2007.
199. Heat content of a complete Riemannian manifold with singular initial conditions, Midwest Geometry Conference in the honor of Thomas P. Branson, University of Iowa, 20.5.2007.
198. Heat flow and Hardy inequality in complete Riemannian manifolds with singular initial conditions, Conference on Heat Kernels in Mathematics and Physics, Blaubeuren, 29.11.2006.
197. Heat flow and Hardy inequality in complete Riemannian manifolds with singular initial conditions, Swansea University, 20.11.2006.
196. Heat flow and Hardy inequality in complete Riemannian manifolds with singular initial conditions, University of Bath, 14.9.2006.
195. Heat content and Hardy inequality for complete Riemannian manifolds, Technische Universität Clausthal, 10.9.2006.
194. Heat flow, Brownian motion and Hardy inequality for complete Riemannian manifolds, Berlin-Leipzig Seminar on Analysis and Probability Theory, Technische Universität Berlin, 21.4.2006.
193. Heat flow, Brownian motion and Newtonian capacity, Chinese-German Workshop, Technische Universität Clausthal, 17.2.2006.
192. Heat flow, Brownian motion and Newtonian capacity: a refinement of theorems by F. Spitzer and S. C. Port, University of British Columbia, Vancouver, 25.1.2006.
191. Heat content and Hardy inequality for complete Riemannian manifolds, University of Oregon, Eugene, Oregon, 24.1.2006.
190. Open problems on heat equation asymptotics, Meeting on Spectrum, Differential Equations and Mathematical Physics, Loutraki, Greece, 16.10.2005.
189. Heat content and Hardy inequality for complete Riemannian manifolds, Conference Operator Semigroups, Evolution Equations and Spectral Theory in Mathematical Physics, Centre International de Rencontres Mathématiques, Luminy, 3.10.2005.
188. Heat content and Hardy inequality for complete Riemannian manifolds, Workshop in Interacting Stochastic Systems, Eurandom, Eindhoven, 21.9.2005.
187. Heat content and Hardy inequality for complete Riemannian manifolds, Workshop Geometrical Aspects of Spectral Theory, Matrei, Austria, 3.7.2005.

186. Heat content and Hardy inequality for complete Riemannian manifolds, Workshop Harnack inequalities and positivity for solutions of partial differential equations, Cortona, Italy, 14.6.2005.
185. Heat flow, Brownian motion and Newtonian capacity, Workshop on Spectral Theory, Symposium The Mathematics of Quantum Systems, University of Warwick, 4.4.2005, 6.4.2005, 7.4.2005.
184. Heat flow, Brownian motion and Newtonian capacity: a refinement of theorems by F. Spitzer and S. C. Port, Eurandom, Eindhoven, 8.3.2005.
183. Large time asymptotics of the heat flow, University of Oregon, Eugene, Oregon, 25.1.2005.
182. Heat content asymptotics for crushed ice geometries, University of Oregon, Eugene, Oregon, 25.1.2005.
181. Large time asymptotics of the heat flow: on theorems of Spitzer and Port, Stochastic Analysis Seminar, E.T.H., Zürich, 3.11.2004.
180. Heat flow and Newtonian capacity, 4ECM Satellite Conference Spectrum and Quantum Mechanics, Stockholm, 3.7.2004.
179. Heat flow, Brownian motion and Newtonian capacity, University College, London, 29.4.2004.
178. On the expected volume of intersection of three independent Wiener sausages in \mathbb{R}^3 , Workshop Analytic and Geometric Aspects of Stochastic Processes, Banff International Research Station, 13.4.2004.
177. On the expected volume of intersection of three independent Wiener sausages in \mathbb{R}^3 , University of Bath, 19.3.2004.
176. Area versus capacity and solidification in the crushed ice model, University of Warwick, 22.1.2004.
175. Heat content and Hardy inequality for complete Riemannian manifolds, University College Cork, 27.11.2003.
174. Brownian motion and heat flow, Workshop on Inverse Spectral Problems, Helsinki University of Technology, 1.9.2003, 2.9.2003, 3.9.2003.
173. On the volume of intersection of three independent Wiener sausages in \mathbb{R}^3 , Workshop Stochastic Processes in Random Media, Bielefeld, 8.7.2003.
172. On the expected volume of the intersection of three independent Wiener sausages in \mathbb{R}^3 , Swiss Probability Seminar, Bern, 4.6.2003.
171. Subexponential behaviour of the Dirichlet heat kernel, University of Oregon, Eugene, Oregon, 27.5.2003.
170. Area versus capacity in the crushed ice problem, University of Loughborough, 14.5.2003.

169. Subexponential behaviour of the Dirichlet heat kernel, Eurandom, Eindhoven, 4.3.2003.
168. Subexponential behaviour of the Dirichlet heat kernel, Mittag-Leffler Institute, Stockholm, 26.9.2002.
167. Subexponential behaviour of the Dirichlet heat kernel, Spectral Theory Network Workshop, Cardiff University, 27.6.2002.
166. Area versus capacity in the crushed ice problem, Technical University of Budapest, 11.4.2002.
165. Area versus capacity in the crushed ice problem, University of Oxford, 5.11.2001.
164. Subexponential behaviour of the Dirichlet heat kernel, Fifth European Meeting on Partial Differential Equations and Applications to Quantum Mechanics, Cardiff University, 14.7.2001.
163. Area versus capacity in the crushed ice problem, Technical University, Delft, 3.7.2001.
162. On Weyl's asymptotic distribution of eigenvalues of the Laplace operator, Institute for Theoretical Sciences, University of Oregon, Eugene, Oregon, 1.5.2001.
161. Spectrum of the Dirichlet Laplace operator on unbounded regions, University of Oregon, Eugene, Oregon, 1.5.2001.
160. Area versus capacity in the crushed ice problem, Purdue University, West Lafayette, 23.4.2001.
159. Heat flow, area and capacity for regions with many small obstacles, Meeting on Stochastic Analysis: Geometric aspects and applications, Eurandom, Eindhoven, 8.1.2001.
158. Spectrum of the Dirichlet Laplace operator on horn-shaped regions, Technische Universität Clausthal, 27.11.2000.
157. Area versus capacity in the crushed ice problem, Mark Kac Seminiarium voor Stochastiek en Fysica, Eurandom, Eindhoven, 6.10.2000.
156. Heat flow, area and capacity for regions with many small holes, Conference PDE 2000, Technische Universität Clausthal, 28.7.2000.
155. Area versus capacity in the crushed ice problem, Workshop Discrete Structures in Mathematics, Universität Bielefeld, 23.6.2000.
154. Area versus capacity in the crushed ice problem, University of Sussex, 14.2.2000.
153. Area versus capacity in the crushed ice problem, University of Exeter, 10.2.2000.
152. Heat flow, area and capacity for regions with many small holes, University of North Carolina, Charlotte, 27.1.2000.

151. Heat flow, area and capacity for regions with many small holes, University of Washington, Seattle, 25.1.2000.
150. Heat flow, area and capacity for regions with many small holes, University of Oregon, Eugene, Oregon, 18.1.2000.
149. Heat flow, area and capacity for regions with many small holes, King's College, London, 21.10.1999.
148. Heat flow, area and capacity for regions with many small holes, Cardiff University, 13.10.1999.
147. Heat flow, area and capacity for regions with many small holes, École Polytechnique Fédérale, Lausanne, 1.10.1999.
146. Spectrum of the Dirichlet Laplacian on horn-shaped regions and zeta functions on cross sections, Workshop Geometric Methods in Spectral Theory, Matrei, Austria, 5.7.1999.
145. Renewal equation for the heat content of an arithmetic snowflake, University of Leeds, 14.6.1999.
144. Heat equation on the arithmetic von Koch snowflake, Meeting on Differential Equations and Fractals, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, 26.3.1999.
143. Heat equation on the arithmetic von Koch snowflake, Colloquium Infinite-dimensional stochastic analysis, Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam, 11.2.1999.
142. Heat equation on the arithmetic von Koch snowflake, Institute for Theoretical Sciences, University of Oregon, Eugene, Oregon, 2.2.1999.
141. Renewal equation for the heat content of an arithmetic snowflake, University of Oregon, Eugene, Oregon, 2.2.1999.
140. Renewal equation for the heat content of an arithmetic snowflake, Swansea University, 29.1.1999.
139. Heat equation on the arithmetic von Koch snowflake, Technische Universität Clausthal, 17.12.1998.
138. Heat equation on the arithmetic von Koch snowflake, Universität Bielefeld, 15.12.1998.
137. Heat equation on the arithmetic von Koch snowflake, Workshop in Spectral Geometry and Applications, Erwin Schrödinger Institute, Vienna, 16.6.1998.
136. Heat flow and spectral asymptotics, Erwin Schrödinger Institute, Vienna, 26.5.1998.
135. Heat flow and spectral asymptotics, 50th British Mathematical Colloquium, University of Manchester, 8.4.1998.
134. Heat flow and spectral asymptotics, University of Nijmegen, 4.3.1998.

133. Heat equation on the arithmetic von Koch snowflake, Mathematical Sciences Research Institute, Berkeley, California, 9.1.1998.
132. Heat equation on the arithmetic von Koch snowflake, Workshop Probability and Analysis in the Context of Mathematical Physics and Biology, Mathematisches Forschungsinstitut Oberwolfach, 15.12.1997.
131. Heat equation on the arithmetic von Koch snowflake, King's College, London, 11.12.1997.
130. Heat equation on the arithmetic von Koch snowflake, University College, London, 22.10.1997.
129. Asymptotics for the spectral heat function and bounds for integrals of Dirichlet eigenfunctions, John T Lewis 65th Birthday Conference, Swansea University, 9.7.1997.
128. Heat equation on the arithmetic von Koch snowflake, University of Bristol, 21.5.1997.
127. Heat content asymptotics for the s -adic von Koch snowflake, University of Oregon, Eugene, Oregon, 13.5.1997.
126. Heat equation on the arithmetic von Koch snowflake, Dublin Institute for Advanced Studies, 20.3.1997.
125. Capacity, independence and comparison theorems for the heat equation, University of Bath, 14.2.1997.
124. Capacity, independence and comparison theorems for the heat equation, Mark Kac Seminarium voor Stochastiek en Fysica, Utrecht, 7.2.1997.
123. Capacity, independence and comparison theorems for the heat equation, University of Cambridge, 22.1.1997.
122. Heat equation for a planar region with a fractal, polygonal boundary, BRIMS, Hewlett-Packard, Bristol, 20.12.1996.
121. Capacity, independence and comparison theorems for the heat equation, Cardiff University, 13.11.1996.
120. Capacity, independence and comparison theorems for the heat equation, Stochastic Analysis Seminar, E.T.H., Zürich, 6.11.1996.
119. Capacity, independence and comparison theorems for the heat equation, Workshop on Probability and Statistical Mechanics, BRIMS, Hewlett-Packard, Bristol, 1.11.1996.
118. Heat equation for a planar region with a fractal, polygonal boundary, London Mathematical Society Symposium on Partial Differential Equations and Spectral Theory, Durham, 25.6.1996.
117. Heat equation for a planar region with a fractal, polygonal boundary, Workshop Function spaces and their applications, University of Sussex, 22.6.1996.

116. Heat equation for a planar region with a fractal, polygonal boundary, Swiss Probability Seminar, Bern, 29.5.1996.
115. Heat equation for a planar region with a fractal, polygonal boundary, University of St. Andrews, 22.2.1996.
114. Heat content asymptotics for planar regions with cusps, Conference on Partial Differential Equations, Caputh, Potsdam, 24.7.1995.
113. Spectral geometry, University of York, 20.6.1995.
112. Spectral geometry, University of Bristol, 12.6.1995.
111. Heat content asymptotics and Brownian motion for planar regions with cusps, Northwestern University, Illinois, 2.6.1995.
110. Heat content asymptotics for planar regions with cusps, University of Oregon, Eugene, Oregon, 30.5.1995.
109. Brownian motion and heat content asymptotics for planar regions with cusps and corners, Mark Kac Seminarium voor Stochastiek en Fysica, Utrecht, 7.4.1995.
108. Heat content asymptotics for planar regions with corners and cusps, University of Sussex, 13.3.1995.
107. Brownian motion and heat content asymptotics for regions with cusps, Université Pierre et Marie Curie, Paris, 22.11.1994.
106. On the spectrum of the Laplace operator on some unbounded planar regions, University of Dundee, 1.11.1994.
105. Heat equation and spectrum of the Laplace operator on regions with a fractal boundary, Glasgow Caledonian University, 13.10.1994.
104. Spectrum of the Dirichlet Laplacian on regions with a hyperbolic boundary, Symposium on Classical and Quantum Billiards, Centro Stefano Francini, Monte Verità, Ascona, Switzerland, 25.7.1994.
103. Spectrum of the Dirichlet Laplacian on some open sets with a fractal boundary, Northwestern University, Illinois, 11.3.1994.
102. Spectral counting function for the Dirichlet Laplacian, University of Oregon, Eugene Oregon, 8.3.1994.
101. Heat content asymptotics for regions with a fractal boundary, University of Oregon, Eugene Oregon, 7.3.1994.
100. Spectral counting function for the Dirichlet Laplacian, Purdue University, West Lafayette, 1.3.1994.
99. Heat equation and spectrum of the Dirichlet Laplacian on regions with a fractal boundary II, The City College, City University of New York, New York, 3.2.1994.

98. Heat equation and spectrum of the Dirichlet Laplacian on regions with a fractal boundary I, The City College, City University of New York, New York, 1.2.1994.
97. Heat content asymptotics for regions with a fractal boundary, Swansea University, 10.12.1993.
96. Heat flow, Minkowski dimension and capacitary density, Mark Kac Seminarium voor Stochastiek en Fysica, Amsterdam, 3.12.1993.
95. Heat flow, Minkowski dimension and capacitary density, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, 16.9.1993.
94. Heat flow, Minkowski dimension and capacitary density, Forty-first Summer Research Institute of Stochastic Analysis, Cornell University, Ithaca, New York, 15.7.1993.
93. Heat flow and Brownian motion for regions in Euclidean space, University of Bath, 25.6.1993.
92. Heat flow, Minkowski dimension and capacitary density, International Conference on Mathematical Results in Quantum Mechanics, Blossin, Berlin, 20.5.1993.
91. Heat flow, Minkowski dimension and capacitary density, Workshop on Fractals, Université de Toulouse I, 15.5.1993.
90. Heat flow, Minkowski dimension and capacitary density, King's College, London, 13.5.1993.
89. Über die Wärmeleitungsgleichung, Universität Mannheim, 8.1.1993.
88. Mean curvature and the heat equation, Technical University of Denmark, Lyngby, Copenhagen, 16.12.1992.
87. Heat flow, Minkowski measure and capacitary density, University of Edinburgh, 23.11.1992.
86. On the expected volume of the Wiener sausage for a Brownian bridge, Workshop Stochastic Analysis, Mathematisches Forschungsinstitut Oberwolfach, 27.10.1992.
85. Heat flow, Brownian motion and electrostatic capacity, Dublin Institute for Advanced Studies, 30.7.1992.
84. Über die Wärmeleitungsgleichung, Ruhr-Universität, Bochum, 29.6.1992.
83. Heat flow and Brownian motion for regions in Euclidean space, University of Sussex, 27.4.1992.
82. On the spectrum of the Dirichlet Laplacian, E.T.H., Zürich, 25.3.1992.
81. Heat flow and Brownian motion for regions in Euclidean space, Friedrich-Alexander Universität Erlangen-Nürnberg, 11.2.1992.
80. On the spectrum of the Dirichlet Laplacian, Cardiff University, 31.1.1992.

79. Capacity, measure and spectrum of the Dirichlet Laplacian, International Symposium on Operator Calculus and Spectral Theory, Pfalz Akademie, Lambrecht, Germany, 9.12.1991.
78. Heat flow, Minkowski measure and capacity density, Journées de Probabilités, Centre International de Rencontres Mathématiques, Luminy, 30.9.1991.
77. Mean curvature and the heat equation, University of Amsterdam, 27.6.1991.
76. Mean curvature, Wiener sausage and the heat equation, Workshop on Probabilistic Methods in Differential Equations, Technion, Haifa, Israel, 28.5.1991.
75. Mean curvature and the heat equation, Conference on diffusion problems, semi-classical methods, the heat kernel and the index theorem, Université de Paris-Sud, Orsay, 22.4.1991.
74. On the spectrum of the Dirichlet Laplacian, King's College, London, 7.2.1991.
73. On the spectrum of the Dirichlet Laplacian for wild domains, Dublin Institute for Advanced Studies, 20.12.1990.
72. On the spectrum of the Dirichlet Laplacian, Swansea University, 6.8.1990.
71. On the spectrum of the Dirichlet Laplacian, Workshop, Cardiff University, 12.7.1990.
70. Gaussian bounds for the Dirichlet heat kernel, Université Pierre et Marie Curie, Paris, 22.5.1990.
69. Gaussian bounds for the Dirichlet heat kernel, Université de Paris-Sud, Orsay, 17.5.1990.
68. On the spectrum of the Dirichlet Laplacian, Université de Paris-Sud, Orsay, 14.5.1990.
67. On the spectrum of the Dirichlet Laplacian, Swansea University, 21.3.1990.
66. Gaussian lower bounds for the heat kernel, Royal Society of Edinburgh, 3.3.1990.
65. Mean curvature and the heat equation, University of Edinburgh, 4.12.1989.
64. Dirichlet-Neumann bracketing and a theorem of Rellich, Conference on diffusion processes and related problems in analysis, Northwestern University, Illinois, 23.10.1989.
63. On the asymptotic distribution of eigenvalues of the Laplace operator, Symposium on Mathematical Physics in honour of Nico Hugenholtz's retirement, University of Groningen, 2.10.1989.
62. Dirichlet-Neumann bracketing and a theorem of Rellich, Informal Statistical Mechanics Workshop, Heriot-Watt University, Edinburgh, 24.8.1989.

61. On the asymptotic distribution of eigenvalues of the Laplace operator, Dublin Institute for Advanced Studies, 11.8.1989.
60. Dirichlet-Neumann bracketing and a theorem of Rellich, Fourth Gregynog Symposium on Differential Equations, Gregynog, 5.7.1989.
59. Dirichlet-Neumann bracketing and a theorem of Rellich, Easter Meeting on Probability, University of Edinburgh, 10.4.1989.
58. Dirichlet-Neumann bracketing and a theorem of Rellich, Meeting on Operator Algebras and Applications, Swansea University, 10.2.1989.
57. Gaussian bounds for the Dirichlet heat kernel, University of Utrecht, 15.12.1988.
56. Mean curvature and the heat equation, University of Utrecht, 15.12.1988.
55. Gaussian bounds for the Dirichlet heat kernel, Swansea University, 7.10.1988.
54. Gaussian bounds for the Dirichlet heat kernel, King's College, London, 6.10.1988.
53. Gaussian lower bounds for heat kernels, Dublin Institute for Advanced Studies, 20.9.1988.
52. Gaussian bounds for the Dirichlet heat kernel, Workshop on Applications of Large Deviations, University of Heidelberg, 28.7.1988.
51. Mean curvature and the heat equation, Workshop on Applications of Large Deviations, University of Heidelberg, 26.7.1988.
50. Gaussian bounds for the Dirichlet heat kernel, Workshop in Probability, University of Edinburgh, 21.6.1988.
49. Mean curvature and the heat equation, Swansea University, 29.3.1988.
48. On a problem of F. Spitzer, University of Cambridge, 23.2.1988.
47. On a problem of F. Spitzer, Dublin Institute for Advanced Studies, 4.1.1988.
46. Entropy estimates and models of an interacting boson gas, Dublin Institute for Advanced Studies, 4.1.1988.
45. On a problem of F. Spitzer, Université Pierre et Marie Curie, Paris, 15.12.1987.
44. Heat flow and Brownian motion, University of Groningen, 30.10.1987.
43. Brownian motion and heat equation, University of Technology, Delft, 2.9.1987.
42. Kac's principle of not feeling the boundary, Workshop on Saint-Venant's Principle and Problem, Heriot-Watt University, Edinburgh, 29.5.1987.
41. Global estimates of heat kernels, Analysis Workshop, University of Edinburgh, 7.5.1987.

40. Phase transition in the HYL model of boson condensation, Open University, Milton Keynes, 6.2.1987.
39. Brownian motion and heat equation, University of Warwick, 5.2.1987.
38. Bounds for the heat kernel, North British Probability Seminar, Edinburgh, 23.1.1987.
37. Gaussian bounds on the heat kernel, Dublin Institute for Advanced Studies, 19.12.1986.
36. Brownian motion and asymptotics of the heat equation, Université Pierre et Marie Curie, Paris, 25.11.1986.
35. Heat equation in polygonal regions, Conference on Stochastic Mechanics, Swansea University, 7.8.1986.
34. Heat equation in polygonal regions, Symposium on Brownian Motion and Stochastic Mechanics, Dublin Institute for Advanced Studies, 11.7.1986.
33. Spectral properties of the Laplacian, Swansea University, 28.2.1986.
32. An introduction to the boson gas, Swansea University, 28.2.1986.
31. Spectral properties of the Laplacian, King's College, London, 27.2.1986.
30. Trace properties of the Dirichlet Laplacian, Stochastic Analysis Seminar, University of Warwick, 13.8.1985.
29. Trace properties of the Dirichlet Laplacian: A probabilistic approach, University of Edinburgh, 22.4.1985.
28. Heat equation, University of Warwick, 12.2.1985.
27. Heat equation, Dublin Institute for Advanced Studies, 21.12.1984.
26. Heat equation, University of Nottingham, 6.12.1984.
25. Large deviations, Dublin Institute for Advanced Studies, 16.11.1984.
24. Functional integration II, Heriot-Watt University, Edinburgh, 6.11.1984.
23. Functional integration I, Heriot-Watt University, Edinburgh, 30.10.1984.
22. Asymptotics of the heat equation, Workshop on Functional Integration and Quantum Mechanics, Swansea University, 15.8.1984.
21. A general theory of Bose-Einstein condensation, University of Technology, Eindhoven, 17.2.1984.
20. Can one hear the shape of a drum ?, Trinity College, Dublin, 23.1.1984.
19. On the spectrum of the Dirichlet Laplacian for horn-shaped regions, Dublin Institute for Advanced Studies, 22.12.1983.
18. On the spectrum of the Dirichlet Laplacian for horn-shaped regions, University of Heidelberg, 14.12.1983.

17. Bounds on trace ($e^{t\Delta}$) for convex regions with smooth boundaries, University of Technology, Delft, 14.9.1983.
16. Bounds on trace ($e^{t\Delta}$) for convex regions with smooth boundaries, University of Groningen, 12.9.1983.
15. Condensation in the imperfect Bose gas, Poster Session XV IUPAP Conference, Edinburgh, 28.7.1983.
14. A general theory of Bose-Einstein condensation, Poster Session XV IUPAP Conference, Edinburgh, 28.7.1983.
13. On boson condensation and the spectrum of the Laplacian, University of Technology, Delft, 15.12.1982.
12. On boson condensation and the spectrum of the Laplacian, University of Groningen, 13.12.1982.
11. On boson condensation and the spectrum of the Laplacian, University of Heidelberg, 2.12.1982.
10. Generalized boson condensation II, University of Groningen, 26.6.1981.
9. Generalized boson condensation I, University of Groningen, 22.6.1981.
8. Boson condensation, University College, Dublin, 30.4.1981.
7. On the free boson gas in a weak external field, University of Groningen, 23.2.1981.
6. On the free boson gas in a weak external field, University of Amsterdam, 30.10.1980.
5. On the free boson gas in a weak external field, Landelijk Seminarium Statistische Mechanica, University of Groningen, 18.4.1980.
4. Estimates of Wiener integrals II, University of Nijmegen, 31.3.1980.
3. Estimates of Wiener integrals I, University of Groningen, 28.2.1980.
2. On the thermodynamics of Coulomb systems, Dublin Institute for Advanced Studies, 28.11.1979.
1. On the statistical mechanics of the classical linear chain, University of Technology, Delft, 15.4.1977.