Curriculum Vitae for Mark Pollicott

Mark Pollicott,	Date of Birth: *24 September, 1959*
Professor of Mathematics,	Place of Birth: *Nottingham, England*
Department of Mathematics,	Nationalities: *British and Portuguese*
Warwick University,	
Coventry CV4 7AL,	Tel: +44 (0)24 7657 4830
United Kingdom	Email: masdbl@warwick.ac.uk

Professional History

University Education

1981	B.Sc. (First Class, Mathematics and Physics), Warwick University
1982	M.Sc. (Distinction, Mathematics), Warwick University
1984	Ph.D. (Mathematics), Warwick University

Permanent positions

1984-88	"New Blood" lecturer, Edinburgh University,
1988-92	Investigador Auxiliar, I.N.I.C. (Porto, Portugal)
1992-95	Lecturer, Warwick University
1995	Reader, Warwick University
1996 - 2004	Fielden Professor of Pure Mathematics, Manchester University
2004 -	Professor of Mathematics, Warwick University

Fellowships

1992-97	Royal Society University Research Fellow
1998-99	Royal Society Leverhulme Trust Senior Research Fellowship
2005	EU Marie Curie Professorship
2007-08	Royal Society Leverhulme Trust Senior Research Fellowship
2014-19	EPSRC Leadership Fellowship
2019-24	ERC Advanced Grant
2026-30	EPSRC Open Fellowship

Selected visiting positions

1984-85	Visiting Member, I.H.E.S. (Bures s/Yvette)
1987-88	Visiting Member, I.A.S. (Princeton)
1988 (Apr.-Aug.)	Visiting Member, M.S.R.I. (Berkeley)
1990 (Apr.-Jun.)	Associate Professor, CalTech. (Pasadena)
1992 (Feb.-Mar.)	Visiting professor, C.N.R.S: Institut Fourier (Grenoble)
2009 (Apr.)	Visiting researcher, C.N.R.S: ENS (Paris)
2010 (Feb.-Mar.)	Visiting Member, Mittag-Leffler institute (Stockholm)
2012-13	Visiting Member, I.H.E.S. (Bures s/Yvette)
2013 (Mar.-Jun.)	Visiting Member, Bernoulli Centre (Lausanne)
2014 (Apr.)	Visiting researcher, Paris-Sud (Orsay)
2015 (Jan.-Apr.)	Visiting Member, M.S.R.I. (Berkeley)
2017 (Sep.)	Visiting member, Mittag-Leffler institute (Stockholm)
2019 (Jul.-Dec.)	Jean Morlet Chair, CIRM-Luminy (Marsailles)

Editorial boards of research journals

Ergodic Theory & Dynamical Systems, 1997-2013 (Executive Editor 1994-97 and 2005-13)
Discrete and Continuous Dynamical Systems, 1995-2007
Journal of Fractal Geometry 2013- to date.
Proceedings of the Edinburgh Mathematical Society, 2014- to date.
Nonlinearity 2018- to date.

PhD Students and Post Doctoral Researchers

PhD STUDENTS

1. Prof. O. Jenkinson (Warwick, 1997)
2. Dr. C. Leech (Warwick, 1997)
3. Dr. Z. Kazim (Manchester, 1999)
4. Dr. V. Evanno (Manchester, 2000)
5. Dr. H. Xia (Manchester, 2002)
6. Dr. S. Shridan (Manchester, 2004)
7. Dr. T. Jordan (Manchester 2005)
8. Dr. D. Thompson (Warwick 2009)
9. Dr. A. Ferguson (Warwick 2011)
10. Dr. P. Felton (Warwick, 2012)
11. Dr. D. Kasigo (Warwick, 2015)
12. Dr. T. Kempton (Warwick, 2015)
13. Dr. I. Cipriano (Warwick, 2015)
14. Dr. N. Jurga (Warwick, 2018)
15. Dr. B. Sewell (Warwick, 2021)
16. Dr. P. Colognese (Warwick, 2021)
17. D. Parmenter (Warwick, 2023)
18. A. Baumgartner(Warwick, 2024)
19. D. Zhang (Warwick, 2024)

RESEARCHERS

1. Dr. R. Nair (Edinburgh, 1995-98)
2. Dr. C. Walkden (Manchester, 1997-99)
3. Dr. P. Verovic (Manchester, 1998)
4. Dr. A. Windsor (Manchester, 2001-04)
5. Prof. K Simon (Warwick, 2005-)
6. Dr. T. Jordan .(Warwick, 2005-08)
7. Dr I. Morris (Warwick, 2006-09)
8. Dr. K. Diaz-Ordaz (Warwick, 2009)
9. Dr A. Bis (Warwick, 2012-13)
10. Dr. M. Fraczek (Warwick, 2013-15)
11. Dr. J. Fraser (Warwick, 2013-14)
12. Dr. B. Barany (Warwick, 2014-15)
13. Dr. S. Baker (Warwick, 2016-19)
14. Dr. P. Vytnova (Warwick, 2016-22)
15. Dr. J. Slipantschuk (Warwick, 2021-24)
16. Dr. J. Lee (Warwick, 2021-24)
17. Dr. T. Bénard (Warwick 2023-24)
18. Dr. T. Rush (Warwick 2024-)

In addition, I have been an examiner on a number of PhD/habilitation committees (including those for N. Anantharaman, V. Delacroix, Lefleurve, M. Peigne, J.-F. Quint, B.Saussol).

Selected research grants

1985-88	SERC Research Grant	
1995	EU Marie Curie Chair	
1992-97	Royal Society Univ. Research Fellowship	
2007-08	Leverhulme Senior Research Fellowship	
1998-2000	EPSRC Research Grant	
2007-2012	EPSRC- TCC	£90k
1996-97	EU Research Grant	
2005-08	EPSRC Standard	£139k
1995-99	INTAS-FSU Grant (Co-ordinator)	
2007-10	EPSRC Standard	£251k
1998-99	Leverhulme Senior Research Fellowship	
2010-11	EPSRC Symposium Grant	£190k
2002-04	EPSRC Research Grant	£114k
2012-15	EPSRC Standard	£265k
2005-06	EU Research Grant	£76k
2013-16	EPSRC Standard	£268k
2014-19	EPSRC Leadership Fellowship	£934k
2019-24	ERC Advanced Grant	£1,600k
2021-24	EPSRC Standard	£33k
2022-25	EPSRC Standard	£405k
2024-25	EPSRC small grant	£80k
2026-30	EPSRC Open Fellowship	£1,523k

Research Semesters (as co-organiser)

2000 (Jan-Jun.)	Ergodic Theory, Geometric Rigidity and Number Theory (INI-Cambridge)
2010-11	Ergodic Theory and Dynamical Systems (Warwick)
2013 (Feb.-May)	Hyperbolic dynamics, large deviations and fluctuations (CIB-Lausanne)
2016 (Feb.-May)	Dimension and dynamics (ICERM-Brown)
2019 (Jul-Dec)	Thermodynamic Formalism (CIRM-Luminy)

In addition, I have held various other collaborative grants which facilitated international exchanges (e.g., Royal Society for Sweden, Hungary, etc.).

Selected administrative duties

1997-to date	Member of the EPSRC Mathematics College
1997-98 + 2001-04	Head of Pure Mathematics, Manchester University
2004-05	Chair of Departmental Board, Manchester University
2005-07 + 2009-10	Director of Postgraduate Studies, Warwick University
2015-2021	Member of LMS publication advisory committee

I have been served on professorial appointment committees (Leicester, Loughborough, Manchester, UEA, Uppsala, Warwick)

I have been an external member of NSF, SNF and AERES/CNRS evaluation committees (Brest, Orleans, Tours, Avignon).

I was a member of the selection panel for invited speakers for Section 9 (Dynamical Systems) for ICM-2002

I regularly referee for international journals (e.g., Annals of Mathematics, Inventiones Mathematicae, JAMS, IHES-Publ, Math.).

Teaching

I have routinely taught courses at all of the institutions I have worked, ranging from basic undergraduate courses (e.g., 1st year Analysis, complex analysis, projective geometry, metric spaces, etc.) to Masters level courses (e.g.,Dynamical Systems, Ergodic Theory, Functional Analysis, Hyperbolic Geometry, Analytic Number Theory, Fractal Geometry, etc.).

Research and publications

Brief summary of principle research contributions

1. The study of *resonances* (dubbed *Pollicott-Ruelle resonances* by nobel prize laureate I. Prigogine). My original work [4] was subsequently promoted, and further developed, by D. Ruelle. This has now become a standard tool in many aspects of dynamical systems, mathematical physics and spectral theory. [1]

2. The study of dynamical zeta functions for hyperbolic flows. I originally developed an approach based on the classical machinery of symbolic dynamics [1], [I],[6]. In 2013 this project was completed using the more modern techniques of anisotropic spaces of distributions (in a joint paper with Guilietti and Liverani [126]), thus solving a conjecture of Smale dating back to 1967.

3. The introduction of a technique into the study of Hausdorff Dimension in Fractal Geoemtry called *transversality*, in joint work with K. Simon [36]. [2]

4. A numerical algorithm (dubbed the *Jenkinson-Pollicott algorithm* by Bourgain and Kontorovich) which is particularly successful at computing suitable numerical invariants (e.g., dimension, entropy, Lyapunov exponents, etc.) [43]. [3]. This has recently been complemented by a second method which leads to improved estimates in specific cases [4]

[1]This provided the original framework for the well known work of Dolgopyat on exponential mixing (Annals of Math. 1998)

[2]This was the principle ingredient, for example, in the famous solution of the Erdös conjecture for Bernoulli convolutions by Solomyak (Annals of Math., 1995)

[3]This has had recent applications to number theory, via the work of Bourgain-Kontorovich (Annals of Math. 2011), in relation to the Zaremba Conjecture

[4]For example, in work with Matheus, Moriera and Vytnova in connection with the Lagrange and Markov spectra [160]

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Books (as author)

I. *Zeta functions and closed orbits for hyperbolic systems* (with W. Parry), *Asterisque* (Societe Mathematique de France), vol. 187-188 (1990) 1-268.
II. *Lectures on Pesin Theory and ergodic theory on manifolds*, *London Mathematical Society Lecture Notes Series* vol. 180, C.U.P., Cambridge, 1992.
III. *Dynamical Systems and Ergodic Theory* (with M. Yuri), *London Mathematical Society Student Text Series*, vol. 40, C.U.P., Cambridge, 1998.
IV. *Equilibrium states in negative curvature* (with F. Paulin and B. Schapira), *Asterisque* (Societe Mathematique de France) vol. 373 (2015) 1-281.
V. *Open Conformal Systems and Perturbations of Transfer Operators* (with M.Urbanski), Lecture Notes in Mathematics, vol. 2206, Springer, Berlin, 2018
VI. Asymptotic counting in conformal dynamical systems (with M.Urbanski), Memoirs of the AMS, 271 (2021), no. 1327, v+139 pp.

Books (as editor)

A. Ergodic Theory of Z^d-actions, (with K. Schmidt), *London Mathematical Society Lecture Notes Series* vol. 228, C.U.P., Cambridge, 1996.
B. Hyperbolic dynamics, large deviations and fluctuations, (with D.Dolgopyat, Y. Pesin and L. Stoyanov) *Proc. Symp. in Pure Math. of the Amer. Math. Soc.* vol. 89, A.M.S., Providence, 2015
C. *Thermodynamic Formalism* (with S. Vaienti), Lecture Notes in Mathematics, vol. 2290, Springer, Berlin, 2022

Research articles

1. An analogue of the prime number theorem for closed orbits of Axiom A flows (with W. Parry), *Annals of Mathematics*, 118 (1983) 573-591
2. A complex Ruelle-Perron-Frobenius theorem and two counterexamples, *Ergodic Theory and Dynamical Systems*, 4 (1984) 135-146
3. Asymptotic distribution of closed geodesics, *Israel Journal of Mathematics*, 52 (1985) 209-224
4. On the rate of mixing of Axiom A flows, *Inventiones Mathematicae*, 81 (1985) 413-426
5. The Chebotarov theorem for Galois coverings of Axiom A flows (with W. Parry), *Ergodic Theory and Dynamical Systems*, 6 (1986) 133-148
6 Meromorphic extensions of generalised zeta functions, *Inventiones Mathematicae*, 85 (1986) 147-164
7. A note on the uniform distribution of primes and closed orbits, *Israel Journal of Mathematics*, 55 (1986) 199-212
8. Distributions of closed geodesics on the modular surface and quadratic irrationals, *Bulletin Societe Mathematique de France*, 14 (1986) 431-446

9. Linking numbers for hyperbolic flows, *Journal of the London Mathematical Society*, 34 (1986) 185-192
10. Symbolic dynamics for Smale flows, *American Journal of Mathematics*, 109 (1987) 183-200
11. Margulis distributions for Anosov flows, *Communications in Mathematical Physics*, 113 (1987) 137-154
12. C^r rigidity theorems for hyperbolic flows, *Israel Journal of Mathematics*, 61 (1988) 14-28
13. Analytic extensions of the zeta function for surfaces of variable negative curvature, *Journal of Differential Geometry*, 29 (1989) 699-709
14. A thermodynamic approach to locally symmetric manifolds of higher rank, *Portugalia Mathematicae*, 46 (1989) 283-304
15. Differentiability and analyticity of topological entropy for Anosov and geodesic flows (with A. Katok, G. Knieper and H. Weiss), *Inventiones Mathematicae*, 98 (1989) 581-597
16. Differentiability and analyticity of topological entropy for Anosov and geodesic flows (with A. Katok, G. Knieper and H. Weiss), *Bulletin of the American Mathematical Society*, 22 (1990) 285-293
17. C^r - rigidity for hyperbolic flows II, *Israel Journal of Mathematics*, 69 (1990) 351-360.
18. Error terms in "Prime Orbit Theorems" for locally constant suspended flows, *Quarterly Journal of Mathematics*, 41 (1990) 313-323.
19. The differential zeta-function for Axiom A attractors, *Annals of Mathematics*, 131 (1990) 331-354
20. Kleinian groups, Laplacian on forms and currents at infinity, *Proceedings of the American Mathematical Society*, 110 (1990) 269-279
21. Some applications of thermodynamic formalism to manifolds of constant negative curvature, *Advances in Mathematics*, 85 (1991) 161-192
22. A note on the Artuso-Aurell-Cvitanovic approach to the Feigenbaum tangent operator, *Journal of Statistical Physics*, 62 (1991) 257-267
23. Homology and closed geodesics in a compact negatively curved surface, *American Journal of Mathematics*, 113 (1991) 379-385
24. Zeta functions and analyticity of metric entropy for Anosov systems *Israel Journal of Mathematics*, 76 (1991) 257-264
25. Agmon's tauberian theorem and an analogue of Merten's theorem, *Proceedings of the American Mathematical Society*, 114 (1992) 1105-1105
26. Rotation sets for homeomorphisms and homology, *Transactions of the American Mathematical Society*, 331 (1992) 881-894
27. Exponential Mixing for the geodesic flow on hyperbolic three manifolds, *Journal of Statistical Physics*, 67 (1992) 667-673
28. A note on asymptotics of perturbed expanding maps, *Portugalia Mathematicae*, 51 (1994) 395-404
29. Rates of recurrence for Z^q and R^q extensions of subshifts of finite type (with R. Sharp), *Journal of the London Mathematical Society,* 49 (1994) 401-416
30. Factorisation of the Lefschetz zeta functions and twisted periodic orbits, *Mathematische Zeitschrift,* 217 (1994) 109-120
31. Derivatives of topological entropy for Anosov and geodesic flows, *Journal of Differential Geometry*, 39 (1994) 457-489

32. The Picard group, closed geodesics and zeta functions, *Transactions of the American Mathematical Society*, 344 (1994) 857-872
33. Orbit counting for some discrete groups acting on simply connected manifolds with negative curvature (with R. Sharp), *Inventiones Mathematicae*, 117 (1994) 275-302
34. A new proof of a theorem of Margulis on geodesic arcs on negatively curved manifolds, *American Journal of Mathematics*, 117 (1995) 289-305
35. The dimensions of some self affine limit sets in the plane (with H. Weiss), *Journal of Statistical Physics*, 77 (1994) 841-866
36. The Hausdorff dimension of λ-expansions with deleted digits (with K. Simon), *Transactions of the American Mathematical Society*, 347 (1995) 967 - 983
37. One dimensional maps via complex analysis in several variables, *Israel Journal of Mathematics*, 91 (1995) 317-339
38. Large deviations, Gibbs measures, and closed orbits for hyperbolic flows, *Mathematische Zeitschrift*, 220 (1995) 219-230
39. Distribution of closed geodesics for manifolds of non-positive curvature, *Discrete and Continuous Dynamical Systems*, 2 (1996) 153-161
40. Large deviations and the distribution of pre-images of rational maps (with R. Sharp), *Communications in Mathematical Physics* 181 (1996) 733 - 739
41. Growth series for the commutator subgroup (with R. Sharp), *Proceedings of the American Mathematical Society* , 124 (1996) 1329-1335
42. Growth of periodic points and rotation vectors on surfaces (with R. Sharp), *Topology* 36 (1997) 765-774
43. The circle problem for co-compact surfaces of variable negative curvature (with R. Sharp), *Monatshefte Mathematica* 123 (1997) 61-70
44. A remarkable formula for the determinant of the Laplacian (with A.C. Rocha) *Inventiones Mathematicae*, 130 (1997) 399-414
45. Poincaré series and zeta functions for surface group actions on R-trees (with R. Sharp), *Mathematische Zeitschrift*, 226 (1997) 335-347
46. The Livsic cocycle equation for compact Lie group extensions of hyperbolic systems (with W. Parry), *Journal of the London Mathematical Society*, 56 (1997) 405-416
47. Asymptotic auto-correlation for closed geodesics *Communications in Mathematical Physics*, 187 (1997) 341 - 355
48. Generalized equilibrium states and behavior of average operators (with A. Fan), *Comptes rendus de l'Acad?ie des sciences*, 327, Serie I (1998) 547-552
49. Exponential error terms for growth functions on negatively curved surfaces, (with R. Sharp), *American Journal of Mathematics*, 120 (1998) 1019-1042
50. An entropy for Z^2-actions with finite entropy generators (with W. Geller), *Fundamenta Mathematica*, 157 (1998) 209-220
51. Large Deviations for maps with indifferent fixed points (with R. Sharp and M. Yuri) *Nonlinearity*, 11 (1998), no. 4, 1173–1184
52. Comparison theorems in hyperbolic geometry (with R. Sharp), *Transactions of the American Mathematical Society*, 350 (1998) 473–499.
53. Multifractal analysis for the continued fraction Manneville-Pomeau transformations and applications to diophantine approximation (with H. Weiss), *Communications in Mathematical Physics*, 207 (1999) 145–171
54. Measurable cocycle rigidity for some noncompact groups (with M. Nicol), *Bulletin of the London Mathematical Society* 31 (1999), no. 5, 592–600.

55. Closed orbits and homology for C^2-flows, *Discrete and Continuous Dynamical Systems*, 5 (1999) 529–534
56. On the rate of mixing of Axiom A attracting flows and a conjecture of Ruelle, *Ergodic Theory and Dynamical Systems*, 19 (1999) 535–548
57. Regularity of solutions to the measurable Livsic equation (with M. Yuri), *Transactions of the American Mathematical Society*, 351 (1999), 559-568
58. Ergodic properties of the Bolyai-Renyi expansion (with O. Jenkinson) *Indagationes Mathematicae,* 11 (2000) 399–418
59. Computing invariant densities and metric entropy (with O. Jenkinson), *Communications in Mathematical Physics*, 211 (2000) 687–703
60. Non-homogeneous equilibrium states and convergence speeds of averaging operators (with Ai Fan), *Mathethematical Proceedings of the Cambridge Philosophical Society* 129 (2000) 99–115
61. Z^d-covers of horosphere foliations, *Discrete and Continuous Dynamical Systems*, 6 (2000) 147–154
62. Rates of mixing for potentials of summable variation, *Transactions of the American Mathematical Society*, 352 (2000) 843–853.
63. Livsic theorems for connected Lie groups (with C. Walkden), *Transactions of the American Mathematical Society*, 353 (2001) 2879-2895
64. Error terms for closed orbits of hyperbolic flows (with R. Sharp), *Ergodic Theory and Dynamical Systems*, 21 (2001) 545-562
65. Linear actions of free groups (with R. Sharp), *Annales de l'Institut Fourier*, 51 (2001) 131-150
66. Poincaré series and comparison theorems for variable negative curvature (with R. Sharp), *American Mathematical Society Translations*, 202 (2001) 229–240
67. Contraction in mean and transfer operators., *Dynamical Systems*, 16 (2001) 97–106
68. Statistical properties of maps with indifferent periodic points (with M. Yuri), *Comm. Math. Phys.* 217 (2001) 503–520
69. Zeta functions for certain multi-dimensional non-hyperbolic maps (with M. Yuri), *Nonlinearity* 14 (2001) 1265-1278
70. Livsic's theorem for semi-simple Lie groups (with M. Nicol), *Ergodic Theory and Dynamical Systems,* 21 (2001) 1501-1509
71. Asymptotic expansions for closed orbits in homology classes (with R.Sharp) *Geometriae Dedicata* 87 (2001) 123-160
72. Computing the dimension of dynamically defined sets (with O. Jenkinson), *Ergodic Theory and Dynamical Systems*, 21 (2001) 1429-1445
73. Dynamical zeta functions , *Proceedings of the Symposium in Pure Mathematics*, 69 (2001) 409-427
74. The dynamics of Schelling-type segregation models and a nonlinear graph Laplacian variational problem (with H. Weiss) *Advances in Applied Mathematics*, 27 (2001) 17–40
75. Ergodicity of stable manifolds for nilpotent extensions of Anosov flows, *Discrete and Continuous Dynamical Systems,* 8 (2002) 599-604
76. Calculating Hausdorff dimension of Julia sets and Kleinian limit sets (with O. Jenkinson), *American Journal of Mathematics*, 124(2002)495-545
77. Invariance principles for interval maps with an indifferent fixed point (with R. Sharp), *Communications in Mathematical Physics*, 229 (2002) 337-346

78. Ergodic prpoerties of linear actions by (2x2)-matrices (with F. Ledrappier), *Duke Mathematical Journal*, 116 (2003) 353-388
79. Stability of mixing rates for Axiom A attractors, *Nonlinearity*, 16 (2003) 567-578
80. Hausdorff dimension and asymptotic cycles, *Transactions of the American Mathematical Society*, 355 (2003) 3241–3252.
81. Time delay coordinates and polynomial mappings, *Advances in Mathematics*, 177 (2003) 280-296
82. Stable ergodicity and frame flows (with K. Burns), *Geometriae Dedicata* 98 (2003) 189-210
83. Free energy as a dynamical and geometric invariant (with H. Weiss), *Communications in Mathematical Physics,* 240 (2003) 457–482
84. Livsic theorems, maximizing measures and the stable norm (with R. Sharp) , *Dynamical Systems*, 19 (2004) 75-88
85. Some remarks on the dynamics of the mixmaster universe (with H. Weiss) *Qualitative Theory of Dynamical Systems,* 4 (2004) 425–438
86. Orthonormal expansions of invariant densities for expanding maps (with O. Jenkinson), *Advances in Mathematics*, 192 (2005)1–34
87. Transitivity of Euclidean extensions of Anosov diffeomorphisms (with V. Nitica), *Ergodic Theory and Dynamical Systems*, 25 (2005) 257–269
88. Local Hölder regularity of densities and Livsic theorems for non-uniformly hyperbolic diffeomorphisms, *Discrete and Continuous Dynamical Systems*, 13 (2005) 1247–1256
89. Distribution results for lattices in $SL(2, Q_p)$ (with F. Ledrappier), *Bulletin of the Brazilian Mathematical Society*, 36 (2005) 143–176
90. Free energy as a geometric invariant (with H. Weiss) *Communications in Mathematical Physics*, 260 (2005), no. 2, 445–454
91. Angular self-intersections for closed geodesics on surfaces *Proceedings of the American Mathematical Society*, (with R. Sharp) 134 (2006) 419–426
92. Correlations for pairs of closed geodesics (with R. Sharp), *Inventiones Mathematicae*, 163 (2006) 1–24
93. Properties of measures supported on flat Sierpinski carpet (with T. Jordan), *Ergodic Theory and Dynamical Systems*, 26 (2006) 739–754: [Addendum: Positive-measure self-similar sets without interior (with M. Csornyei, T. Jordan, D.Preiss and B. Solomyak) *Ergodic Theory and Dynamical Systems*, 26 (2006) 755-758]
94. Skew products and Lie theory (with W. Parry), *Translations of the American Mathematical Society*, 217 (2006) 139-165
95. Distribution of ergodic sums for hyperbolic maps (with R. Sharp), *Translations of the American Mathematical Society*, 217 (2006) 167-183
96. Hausdorff dimension for randomly perturbed self affine attractors (with T. Jordan and K. Simon), *Communications in Mathematical Physics*, 270 (2007) 519-544
97. Pair correlations of sequences in higher dimensions (with R. Nair), *Israel Journal of Mathematics*, 7 (2007), 219–238
98. Distribution of orbits for Mobius groups, *Fields Insitute Publications*, vol. 51, 1 (2007) 329-339
99. Multifractal analysis and the variance of Gibbs measures (with T.Jordan), *Journal of the London Mathematical Society*, 76 (2007), no. 1, 57–72
100. Stable ergodicity for partially hyperbolic attractors with negative central exponents (with K. Burns, D. Dolgopyat and Y. Pesin), *Journal of Modern Dynamics*, 2 (2008) 63-81

101. Chebotarev-type theorems in homology classes(with R. Sharp), *Proceedings of the American Mathematical Society*, 35 (2007), no. 12, 3887–3894
102. A dynamical approach to accelerating numerical integration with equidistributed points (with O. Jenkinson), *Proceedings of the Steklov Institute*, 256 (2007) 290–304
103. Pseudo-Anosov foliations on periodic surfaces (with R. Sharp), *Topology and its Applications*, 154 (2007), no. 12, 2365–2375
104. The Hausdorff dimension of measures for iterated function schemes which contract on average (with T. Jordan), *Discrete and Continuous Dynamical Systems*, 22 (2008) 235–246
105. An analogue of Bauer's Theorem for closed orbits of skew products (with W. Parry, posthumously), *Ergodic Theory and Dynamical Systems* , 28 (2008) 535-546
106. Countable state shifts and the uniqueness of g-measures (with A.Johansson and A.Oberg), *American Journal of Mathematics*, 129 (2007), no. 6, 1501-1511
107. An analogue of Artin reciprocity for closed orbits of skew products (with R. Sharp), *Ergodic Theory and Dynamical Systems* 28 (2008) 547-552
108. How smooth is your wavelet? Wavelet regularity via thermodynamic formalism (with H. Weiss), *Communications in Mathematical Physics*, 281 (2008) 1–21.
109. Periodic orbits and holonomy for hyperbolic flows, in Geometric and Probabilistic Structures in Dynamics, (with R. Sharp), *Contemporary Mathematics*, 469, 289-302, (2008)
110. Limiting distributions for geodesics excursions on the modular surface, in Spectral analysis in geometry and number theory, Contemp. Math., 484 (2009) 177–185
111. Large deviations, fluctuations and shrinking intervals, (with R. Sharp) Communications in Mathematical Physics, 290 (2009) 321–334.
112. Large deviations for intermittent maps, (with R. Sharp) *Nonlinearity* 22 (2009) 2079–2092.
113. Ergodicity of the Geodesic Flow on Non-complete Negatively Curved Surfaces, *Asian Journal of Mathematics*, 13 (2009) 405-419
114. Sets of non-differentiability for conjugacies between expanding interval maps (with T. Jordan, M. Kessebohmer, and B. Stratmann), *Fundamenta Mathematicae*, 206 (2009) 161-183
115. Normal points for generic hyperbolic maps, *Fundamenta Mathematicae*, 20 (2009) 271-280
116. Topological dynamics of the Weil-Petersson geodesic flow (with H.Weiss and S. Wolpert), *Advances in Mathematics* 223 (2010) 1225–1235
117. Maximal Lyapunov exponents for random matrix products, *Inventiones Mathematicae*, 181 (2010) 209-226
118. Multifractal analysis of non-uniformly hyperbolic systems (with A. Johansson, T. Jordan and A.Oberg), *Israel Journal of Mathematics* , 177 (2010) 125-144
119. Stationary measures for projective transformations: The Blackwell and Furstenberg measures (with B. Barany and K. Simon), *Journal of Statistical Physics* , 148 (2012) 393-421
120. Unique Bernoulli g-measures (with A. Johansson and A. Oberg), *Journal of the European Mathematical Society* , 14 (2012) 1599-1615
121. A. Ferguson and M. Pollicott, Escape Rates for Gibbs measures, *Ergodic Theory and Dynamical Systems* , 32 (2012) 961-988

122. Geometry and dynamics for planar linkages (with M.L.S. Magalhaes), *Communications in Mathematical Physics*, 317 (2013) 615-634
123. A note on the growth of periodic points for commuting toral automorphisms, *International Scholarly Research Notices in Geometry*, 2012 . Article no. 165808
124. Correlations of length spectra for negatively curved manifolds (with R. Sharp), *Communications in Mathematical Physics* , 319 (2013) 515-533
125. Ergodic theorems for actions of hyperbolic groups (with R.Sharp), *Proceedings of the American Mathematical Society*, 141 (2013) 1749-1757
126. Anosov Flows and Dynamical Zeta Functions (with P. Giulietti and C. Liverani), *Annals of Mathematics*, 178 (2013) 687-773
127. Length asymptotics in higher Teichmüller theory, (with R. Sharp), *Proceedings of the American Mathematical Society*, 142 (2014) 101-112.
128. A Weil-Petersson type metric on spaces of metric graphs (with R. Sharp), *Geometria Dedicata*, 172 (2014), 229-244.
129. Estimating Mahler measures using periodic points for the doubling map (with P. Felton), *Indagationes Mathematicae*, 25 (2014) 619-631.
130. Analyticity of dimensions for hyperbolic surface diffeomorphisms, *Proceedings of the American Mathematical Society*, 143 (2015) 3465-3474.
131. Micromeasure distributions and applications for conformally generated fractals (with J. Fraser), Math. Proc. Cambridge Philos. Soc. 159 (2015) 547-566.
132. Estimating Singularity Dimension (with P. Vytnova), *Mathematical Proceedings of the Cambridge Philosophical Society*, 158 (2015) 223–238.
133. Computing multifractal spectra (with D. Kagiso), Dyn. Syst. 30 (2015) 404-425.
134. Logarithm laws for equilibrium states in negative curvature (with F. Paulin), *Communications in Mathematical Physics*, Comm. Math. Phys. 346 (2016), no. 1, 1-34.
135. Weil-Petersson metrics, Manhattan curves and Hausdorff dimension (with R. Sharp), Math. Z. 282 (2016) 1007-1016.
136. Linear response and periodic points (with P. Vytnova), *Nonlinearity*, 29 (2016) 3047-3066.
137. Amenable covers for surfaces and growth of closed geodesics, *Advances in Mathematics*, 319 (2017), 599-609.
138. Uniform scaling limits for ergodic measures, (with J. Fraser), *Journal of Fractal Geometry*, 4 (2017) 1-19.
139. Ergodic Theory of Kusuoka measures, (with A. Oberg and A. Johansson), *Journal of Fractal Geometry*, 4 (2017) 185-214.
140. Critical points for the Hausdorff Dimension of pairs of pants, (with P. Vytnova), *Groups, Geometry and Dynamics*, 11 (2017) 1497-1519.
141. A note on the shrinking sector problem for surfaces of variable negative curvature,Tr. Mat. Inst. Steklova 297 (2017), *Poryadok i Khaos v Dinamicheskikh Sistemakh*, 281-291.
142. A Nonlinear Transfer Operator Theorem, *Journal of Statistical Physics*, 166 (2017) 516-524.
143. Controlling the statistical properties of expanding maps, (with S. Galatolo) *Nonlinearity*, 30 (2017) 2737-2751.
144. Rigorous Computation of Diffusion Coefficients for Expanding Maps, (with O.Jenkinson and P.Vytnova), *Journal of Statistical Physics*, 170 (2018), 221-253.

145. Rigorous effective bounds on the Hausdorff dimension of continued fraction Cantor sets: A hundred decimal digits for the dimension of E2, (with O. Jenkinson) *Advances in Mathematics*, 325 (2018), 87-115.
146. Stationary measures associated to analytic iterated function schemes, (with I. Cipriano) *Mathematische Nachrichten*, 291 (2018) 1049-1054
147. Joint spectral radius, sturmian measures, and the finiteness conjecture, (with O.Jenkinson), *Ergodic Theory and Dynamical Systems* 38 (2018) 3062–3100.
148. Zeros of the Selberg zeta function for non-compact surfaces (with P. Vytnova), *Geomtriae Dedicata*, 201 (2019), 155–186.
149. Phase transitions in long-range Ising models and an optimal condition for factors of g-measures, (with A. Johansson and A. Oberg), *Ergodic Theory and Dynamical Systems*, 39 (2019), no. 5, 1317–1330.
150. Volume growth for infinite graphs and translation surfaces (with P. Colognese), *Contemporary Mathematics*, 744, (2020) 109–123,
151. Rigorous dimension estimates for Cantor sets arising in Zaremba theory, (with O. Jenkinson), *Contemporary Mathematics*, 744, (2020) 83-107.
152. The Schottky-Klein prime function and counting functions for Fenchel double crosses. Monatsh. Math. 195 (2021), no. 2, 323–342
153. Fourier multipliers and transfer operators. J. Fractal Geom. 8 (2021), no. 2, 189–199.
154. How Many Inflections are there in the Lyapunov Spectrum? (with O. Jenkinson and P.Vytnova) Comm. Math. Phys. 386 (2021) 1383–1411.
155. Effective estimates of Lyapunov exponents for random products of positive matrices. Nonlinearity 34 (2021), no. 10, 6705–6718.
156. Higher Teichmüller theory for surface groups and shifts of finite type (with R. Sharp), in Thermodynamic formalism, Springer Lecture Notes in Mathematics vol. 2290, 395-418.
157. Uniform lower bounds on the dimension of Bernoulli convolutions.(with V. Kleptsyn and P. Vytnova), Advances in Mathematics, 395 (2022) Paper No. 108090, 55 pp.
158. Gibbs measures for hyperbolic attractors defined by densities (with D. Parmenter), Discrete Contin. Dyn. Syst. 42 (2022), no. 8, 3953–
159. Minimizing entropy for translation surfaces (with P. Colognese) Conformal Geometry and Dynamics, 26 (2022), 97–110.
160. Hausdorff dimension of Gauss-Cantor sets and two applications to classical Lagrange and Markov spectra (with C. Matheus, C. Moreira and P. Vytnova), Advances in Mathematics, 409 (2022), Paper No. 108693,
161. Hausdorff dimension estimates applied to Lagrange and Markov spectra, Zaremba theory, and limit sets (with P.Vytnova), Transactions of the American Mathematical Society, Ser. B 9 (2022), 1102–1159.
162. Comparison theorems for closed geodesics on negatively curved surfaces (with S. Cantrell), Groups, Geometry and Dynamics, 16 (2022), no. 2, 461–491.
163. Gibbs measures for hyperbolic attractors defined by densities (with D. Parmenter), Discrete and Continuous Dynamical Systems, 42 (2022), no. 8, 3953–3977.
164. Accurate bounds on Lyapunov exponents for expanding maps of the interval (with P. Vytnova), Communications in Mathematical Physics, 397 (2023), no. 1, 485–502.
165. Groups, drift and harmonic measures (with P. Vytnova), in Lecture Notes in Mathematics vol 2313 (2023) pp.301-311

166. Explicit examples of resonances for Anosov maps of the torus (with B. Sewell) Nonlinearity 36 (2023) 110–132.
167. An upper bound on the dimension of the Rauzy Gasket (B. Sewell),Bull. Soc. Math. France 151 (2023), no. 4, 595–611.
168. Sierpinski fractals and the dimension of their Laplacian spectrum (with J. Slipantschuk), Mathematical and Computational Applications 28(3), 2023.
169. Zeta functions in higher Teichmuller theory (with R. Sharp), Math. Z. 306 (2024), no. 3, Paper No. 37, 20 pp.
170. An infinite interval version of the α-Kakutani equidistribution problem, (with B.Sewell), Israel J. Math. 260 (2024), no. 1, 365–399
171. An elementary proof that the Rauzy gasket is fractal, (with B.Sewell), Ergodic Theory Dynam. Systems 44 (2024), no. 7, 1913–1922
172. Effective estimates of ergodic quantities illustrated on the Bolyai-Rényi map, (with J. Slipantschuk), Nonlinearity 37 (2024), no. 9, Paper No. 095013, 19 pp.
173. Rigidity of pressures of Hölder potentials and the fitting of analytic functions through them, Ergodic Theory, (with L. Ma) Dynam. Systems 44 (2024), no. 12, 3530–3564.
174. Maximizing dimension for Bernoulli measures and the Gauss map, Proc. Amer. Math. Soc. 153 (2025), no. 5, 1963–1968.
175. Extreme events for horocycle flows (with J. Marklof) Nonlinearity 38 (2025), no. 5, Paper No. 055003.
176. The growth and distribution of large circles on translation surfaces (with P. Colognese), Conform. Geom. Dyn. 29 (2025), 90–116
177. Maximizing dimension for Bernoulli measures and the Gauss map, Proc. Amer. Math. Soc. 153 (2025), no. 5, 1963–1968.
178. R Rapid mixing for compact group extensions of hyperbolic flows (with D. Zhang) , Trans. Amer. Math. Soc. 378 (2025), no. 7, 5011–5056.
179. Continuous eigenfunctions of the transfer operator for Dyson models (with A. Johansson and A. Oberg) Math. Z. 310 (2025), no. 4, Paper No. 62, 15 pp.
180. The Bowen-series coding and zeros of zeta functions (with P. Vytnova) Banach Center Publ., 131 Institute of Mathematics, Polish Academy of Sciences, Warsaw, 2026, 165–210.
181. Central limit theorems for Green metrics on hyperbolic groups (with S. Cantrell) Ann. H. Lebesgue 9 (2026), 1–32.

Summary of research data

General Journal	#Papers
Advances in Mathematics	9
American Journal of Mathematics	6
American Mathematical Society journals	15
Annals of Mathematics	3
Inventiones Mathematicae	7
London Mathematical Society journals	5
Specialist Journal	#Papers
Communications in Mathematical Physics	16
Ergodic Theory and Dynamical Systems	16
Journal of Statistical Physics	4
Nonlinearity	3

Mathscinet
Citations = 3404 (by 1758 authors)
Google Scholar
Citations = 8165 h-index = 44 ¡10-index = 127

Surveys and articles in conference proceedings

1. Distributions at infinity for Riemann surfaces, in Proc. Conf. "Dynamical Systems and Ergodic Theory", Stefan Banach Center, vol. 23, 1989
2. Closed Geodesics and Zeta functions, in Proc. Conf. "Ergodic theory and Hyperbolic Geometry", O.U.P., Oxford, 1990, pp. 153-173
3. Notes on thermodynamic formalism for Anosov flows, in "Rencontres de theorie spectrale et geometrie", Grenoble, 1991, pp.123-128
4. Symbolic dynamics and geodesic flows, in "Seminaire de theorie spectrale et geometrie", Chambery-Grenoble, 1991-1992, pp.1-20
5. The story of the solution of the Feigenbaum conjectures, Proceedings of the conference in honour of the 50th anniversary of the Centro de Matematica do Porto, pp.75-85
6. On the Ruelle-Tangerman theorem for zeta functions, Proceedings of the European Conference on Iteration Theory, Lisbon, 1991, pp.201-209
7. Infinitesimal Rigidity of Group Actions with Hyperbolic Generators, in *Dynamical Systems and Applications* World Scientific Series In Applicable Analysis 4, pp.589-599
8. Entropy and geodesic arcs on surfaces, Proceedings of the International conference on dynamical systems *Pitman research Notes in Mathematics* 362, 1996.
9. Stability of mixing for toral extensions (with W. Parry) *Proceedings of the Steklov Institute*, vol. 216, 1997, pp. 350-359
10. Notes on thermodynamic formalism for Anosov flows. Rencontres de Theorie Spectrale et Geometrie (Aussois, 1991), 123–128
11. Addendum to "Periodic orbits and dynamical spectra, by V. Baladi" (with D. Dolgopyat), *Ergodic Theory and Dynamical Systems*, 18 (1998), no. 2, 293–301.
12. Periodic orbits and zeta functions, in Handbook of Dynamical Systems, vol IA, Elsevier, (2002) 409-452
13. Entropy, exponents and invariant densities for hyperbolic systems: Dependence and computation (with O. Jenkinson), in Modern Dynamical Systems and its Applications(eds. M. Brin, B. Hasselblatt, Y. Pesin), C.U.P., Cambridge, 2004
14. Dynamical zeta functions and closed orbits for geodesic and hyperbolic flows. Frontiers in number theory, physics, and geometry. I, 379–398, Springer, Berlin, 2006.
15. The mathematical research of William Parry FRS, (with R. Sharp, S. Tuncel and P. Walters), *Ergodic Theory and Dynamical Systems*, 28 (2008) 321-337
16. Asymptotic vertex growth for graphs. Spectrum and dynamics,CRM Proc. Lecture Notes, 52, Amer. Math. Soc., Providence, RI, 2010, pp. 137?145
17. Statistics of matrix products in hyperbolic geometry (with R. Sharp), in Dynamical Numbers: Interplay between Dynamical Systems and Number Theory, Contemporary Mathematics 532, AMS, 2011, pp. 213-230
18. Factors of Gibbs measures for full shifts (with T. Kempton), in Entropy of Hidden Markov Processes and Connections to Dynamical Systems, LMSLNM 385, CUP, 2011, pp. 246-257
19. Computing entropy rates for hidden markov processes, in Entropy of Hidden Markov Processes and Connections to Dynamical Systems, LMSLNM 385, CUP, 2011, pp. 223-245.
20. On the Hannay-Ozorio De Almeida Sum Formula (with R. Sharp), in Dynamics, Games and Science II DYNA 2008, Springer, 2011, pp. 575-590.
21. Dynamical Zeta Functions, Proceedings of the Leiden Numeration Conference 2010, Integers, 11B (2011) A11

22. Rates of Convergence for Linear Actions of Cocompact Lattices on the Complex Plane, Proceedings of the Leiden Numeration Conference 2010, Integers, 11B (2011) A12
23. Periodic points, escape rates and escape measures (with O. Bandtlow and O.Jenkinson), "Ergodic theory, open dynamics, and coherent structures", Springer Proceedings in Mathematics and Statistics, Vol. 70 (2014) 41-57.
24. Zeta functions for Anosov flows, Proceedings of the International Congress of Mathematicians, 2014.
25. Apollonian circle packings. Fractal geometry and stochastics V, 121-142, Progr. Probab., 70, Birkhüser/Springer, Cham, 2015.
26. Hyperbolic systems, zeta functions and other friends, Banach Center Publications, 115 (2018) 145-182
27. Apollonius circle counting. London Matematical. Society Newsletter. No. 478 (2018), 31–34.
28. Dynamical zeta functions and the distribution of orbits. Handbook of group actions. V, 399–440, International Press, Boston
29. Statistical properties of the Rauzy-Veech-Zorich map (with R.Aimino), in Thermodynamic formalism, Springer Lecture Notes in Mathematics vol. 2290 (2022) 317-349.
30. A dynamical approach to validated numerics (with O.Jenkinson), Cambridge University Press, Cambridge, 2024, 168–206. ISBN: 978-1-009-27890-4
31. Lectures on equilibrium states, mixing and dimension Banach Center Publ., 131 Institute of Mathematics, Polish Academy of Sciences, Warsaw, 2026, 117–164.

Selected conferences and symposia

Conferences as organiser

European conference on Iteration Theory, Lisbon, Sept. 1991
International Conference on Dynamical Systems, Porto, Aug. 1992.
Stochastic analysis, Lisbon Jun. 1994.
Ergodic Theory on Riemannian Manifolds, Warwick, Jun. 1995
Symposium on Ergodic Theory, Geometric Rigidity and Number Theory, INI (Cambridge), Jan-Jul. 2000, inc. workshops
    Ergodic Theory, Geometry and Lie Groups, Jan. 2000
    Ergodic Theory, Riemannian Geometry and Number Theory, Jul. 2000.
Ergodic Theory of Z^d-actions, Warwick, Apr. 2000.
International Conference on Dynamical Systems, Porto, May 2000.
Dynamical Systems, ICMS (Edinburgh), Jul. 2000.
Probabilistic Limit Laws for Dynamical Systems, ICMS (Edinburgh), Jun. 2005.
Dynamical Systems and Statistical Mechanics, LMS Durham Symposium, Jul. 2006.
Workshop on Ergodic Theory: Memorial meeting for William Parry, FRS, Warwick, 2007.
Workshop on Ergodic Theory and Geometry , Manchester, Apr. 2008.
Symposium on Ergodic Theory & Dynamical Systems, Warwick, 2010-11, inc. workshops
    Ergodic Theory & Dynamical Systems: 30th Anniversary of the journal, Sep. 2010
    Recent advances in modern dynamics, Warwick, Dec. 2010
    Ergodic Theory and Number Theory, Apr. 2011
    Dimension Theory and Dynamical Systems, Apr. 2011

Workshop on Ergodic Theory & Dynamical Systems
Recent Advances in Modern Dynamics, Warwick, Dec. 2011
Ergodic Theory & Dynamical Systems: Perspectives and Prospects, Warwick, Apr. 2012.
Symposium on Hyperbolic dynamics, large deviations and fluctuations, CIB-Lausanne, Jan.-Jun. 2013, including a workshop:
Limit Theorems for Dynamical Systems, Jun. 2013
Symposium on Dimension and Dynamics, ICERM (Brown, USA), Feb.-May 2016.
Ergodic Theory, Algorithms and Rigorous Computations, Warwick, April 2017.
Fifty years of Thermodynamic Formalism (Lorenz Centre-Leiden, Aug. 2018)
Semester on Thermodynamic Formalism CIRM-Luminy, July-December, 2019, inc
Summer School, 1-5 July
Workshop, 8-12 July
Conference, 8-12 December 2019
Probabilistic techniques for random and time-varying dynamical systems, CIRM-Luminy, 3-7 October 2022
Mathematics of computation: MIR@W Day, Warwick, April 2024.
Dynamical Systems: Geometric and Statistical Aspects, Warwick, July 2024
Methods in Nonlinear Dynamics and Ergodic Theory, Warwick, December 2024.

Conferences as member of Scientific committee
Anosov Systems and Modern Dynamics, Steklov Institute, Dec, 2016
Ergodic Theory, Algorithms and Rigorous Computations, Warwick, April 2017
Ecole d'Ete ZETAS 2018, Le Bourget-du-Lac, June 2018
Fractal Geometry and Stochastics 6, Bad Herrenalb (Germany), Sep. 2018
Dynamics, measures and dimensions, MPAN-BC Bedlewo, April 2019.
Selection Panel for the section on Dynamical Systems, ICM-2022.

Conferences as invited speaker
I have been an invited speaker at over 200 international conferences, workshops and meetings, including:
International Congress of Mathematicians, Seoul (2014), Invited speaker in the section of Dynamical Systems and ODEs.

Selected international meetings (since 2008)

From Dynamical Systems to Statistical Dynamics, CIRM-Marsaille, Feb. 2008
Workshop on Dynamical Systems and Related Topics (Brin's 60th Birthday), Maryland, Mar. 2008
Workshop on Spectrum and Dynamics, Montreal, Apr. 2008
Non-equilibrium processes, ESI-Vienna, Jun. 2008
Hyperbolic Dynamical Systems, ESI-Vienna, Jun. 2008
International Conference in honour of Misiurewicz's 60th birthday, Bedlewo, Jul. 2008
Dynamical Systems: Geometric structures and rigidity, Bedlewo, Jul. 2008
Fractals and Dynamical Systems, Warwick, 2008
Geometric Group Theory, Hyperbolic Dynamics and Symplectic Geometry, MFO-Oberwolfach, Sep. 2008
Prospects in Mathematics, Durham, Jan. 2009
Dynamical Numbers, MPI-Bonn, July 2009

Global Dynamics Beyond uniform hyperbolicity, Beijing, Aug. 2009
Conference in honour of V. Kaimanovich , Bremen, Nov. 2009.
Workshop on Dynamical Systems and Related Topics (in honor of Dan Rudolph), Maryland, Apr. 2010
Numeration, Lorentz Center-Leiden, Jun. 2010 *(minicourse)*
Workshop on infinite ergodic theory and related fields, Weizmann Institute-Israel, Jun. 2010
Geometric Group Theory, Hyperbolic Dynamics and Symplectic Geometry, MFO-Oberwolfach, Jul. 2010
AIM-CIM workshop on geodesics, Tianjin, Aug. 2010
Ergodic optimization, BIRS-Banff, Feb., 2011
Beyond Uniform Hyperbolicity, CIRM-Marsaille, Jun. 2011
Fractals and related fields II, Porquerolles, France, Jun. 2011
Ergodic Methods in the Theory of Fractals, CBMS-Kent State, Jun 2011
Large deviations in dynamical systems, CIRM-Marsaille, Jul. 2011
International Summer School on Dynamical Systems, Gottingen, Jul. 2011
Thermodynamic Formalism, Geometry and Stochastics, MFO-Oberwolfach, Jan. 2012
Open dynamical systems: Ergodic Theory, probabilistic methods and applications, BIRS-Banff, Apr. 2012
Progress and Problems in Dynamics (in honour of Mike Field) Houston, May, 2012
Infinite ergodic theory, Surrey, May, 2012.
Modern trends in ergodic theory, Uppsala, Jun. 2012.
Dtynamics of the Weil-Petersson geodesic flow, AIM-Palo Alto, Jun. 2012
Geometric Group Theory, Hyperbolic Dynamics and Symplectic Geometry, MFO-Oberwolfach, Jul 2012
Stochastics, Dimension and Dynamics, CAS-Beijing, Jul. 2012 *(minicourse)*
Dynamical Systems, Göttingen, Aug. 2012
Advances on Fractals and Related Topics, Hong-Kong, Dec. 2012.
Non-equilibrium Statistical Mechanics and the Theory of Extreme Events in Earth Science, Reading, Jan. 2013
STAR workshop Probability and Numbers; Delft, Apr. 2013
Limit theorems for dynamical systems, Jun. 2013.
Quantum chaos, resonances and semi-classical measures, Roscoff, Jun. 2013
Number Theory and Dynamics, Grenoble, Jun. 2013 *(minicourse)*
Thermodynamic Formalism and its applications, PUC-Chile, Jul. 2013
Graph Theory and Interactions, LMS Symposium-Durham, Jul. 2013
Pressure and Weil-Petersson metric, QMS-Aarhus, Aug. 2013
Non-equilibrium statistical mechanics and the theory of extreme events in the earth sciences, INI-Cambridge, Aug., 2013
Computational interpretation of mathematical theorems, Royal Society, Nov. 2013
Hyperbolicity and dimension, CIRM-Luminy, Dec. 2013
Wandering Ergodic Theory and Dynamical Systems Seminar; Krakow, Jan. 2014
Fractal Geometry and Stochastics V, Tabarz, Mar. 2014
BMC-Ergodic Theory workshop, QM-London, Apr. 2014
Spring School on Geometry and Dynamics; CIRM-Marseille, April 2014
NCTS Workshop on Dynamical Systems, Taiwan, May, 2014 *(minicourse)*
Spectral problems for hyperbolic dynamical systems, Bordeaux, May 2014
Workshop on Fractals, Jerusalem, Jun. 2014

Limit theorems in dynamics and applications, CIRM-Marsaille, Jun. 2014
Extreme value theory and laws of rare events, CIRM-Marsaille, Jun. 2014
Dynamics and Numbers, MPI-Bonn., Jul. 2014
Groups, Numbers, and Dynamics, INI-Cambridge, July 2014
Dynamical systems and related topics, Daejeon, Aug. 2014
Dynamical systems and related topics (Katok's 70th Birthday), Penn State, Oct. 2014
Wandering Ergodic Theory and Dynamical Systems Seminar; Krakow, Nov. 2014
AMS-EMS-SPM meeting (Porto, June 2015)
Dynamical Systems (Porquerolles, Jun. 2015)
Dynamical Systems (Trieste, Aug. 2015)
Fractals and Related Fields III (Porquerolles, Sep. 2015)
Fractal Geometry and Dynamics (Bedlewo, Oct. 2015)
Ergodic Theory of Dynamical Systems (Bedlewo, Nov.. 2015)
Number Theory and Dynamical Systems (Goa, January, 2016)
Conference of honour of F. Ledrappier's 60th Birthday (Bonn, Jan. 2016)
Groups, Orbits and Diophantine Approximation (Goa, India, Feb. 2016)
Fractal Geometry, Hyperbolic Dynamics and Thermodynamical Formalism (ICERM, Mar., 2016)
Mixing and statistical properties (ESI-Vienna, April, 2016) *(minicourse)*
Geometrie Ergodique (Jussieu-Paris, June 2016)
Systemes dynamiques hyperboliques:One day meeting (Avignon, Jun. 2016)
Fractal Geometry (Manchester, UK, Jun. 2016)
Statistical Properties of Nonequilibrium Dynamical Systems (Shenzhen, July 2016) *seminar and minicourse*
AustMS (Canberra, Nov. 2016)
Probabilistic Aspects of Multiple Ergodic Averages (CIRM, Luminy, Dec. 2016)
One Day Ergodic Theory Meeting (Loughborough, UK, Jan. 2017)
Dynamical Systems (Tehran, Iran, Feb. 2017) *seminar and minicourse*
Dynamical Systems and Interactions (CIRM, Luminy, Feb. 2017)
Resonances: Geometric Scattering and Dynamics (CIRM, Luminy, Mar. 2017)
Analysis aspects of dynamical systems (Imperial College, May 2018)
Dynamical Systems and Ergodic Theory - Pesin Conference (Trieste-ITCP, May 2018)
LxDS-Summer school [Minicourse] (Lisbon, May 2018)
International Conference on Dynamical Systems (SusTech, Jun. 2018)
Thermodynamic Formalism in Dynamical Systems (Edinburgh-ICMS, Jun. 2018)
Fractal Geoemtry and Stochastics 6 (Bad Herrenallb, Sep. 2018)
Journees de Dynamique (Paris, Dec. 2018)
Dynamics, measures and dimension [lecture and minicourse](Bedlewo, Apr. 2019)
Workshop in Dynamical Systems and related fields (Penn State, Sep. 2019)
First Dynamical Systems Summer Meeting (Bedlewo, Aug 2021)
Wild Dynamical Systems (Azores, Sep. 2021)
Dynamical Systems (Nottingham, Oct. 2021)
Dynamics of semi-group actions (online - Lodz, Jun. 2021)
Lyapunov exponents (Lisbon, Feb. 2022)
Dinamici VII (Jun. 2022)
Renyi Centennial Conference (Budapest, Jun, 2022)
Geometry of deterministic and random fractals (Budapest, Jun, 2022)

LMS two day meeting on Fractals (Sep. 2022)
Geometry, Stochastics and Dynamics (Imperial College, Sep. 2022)
LMS Regional meeting on Fractals (Warwick, Mar. 2023)
Minicourse on Gibbs measure and resonances (Warsaw, April 2023)
Beyond uniform hyperboilicity (Bedlewo, Poland, Apr-May 2023)
Minicourse on estimating dimension and lyapunov exponents (Warsaw, May 2023)
Subadditive thermodynamic formalism and related topics (Bedlewo, Poland, May 2023)
Analytic techniques in geoemtry and dynamics (Les Diabelets, Switzerland, May-June 2023)
Multifractal analysis and self-similarity (CIRM, June 2023)
10th Visegrad Conference on Dynamical Systems (Lodz, June 2023)
Fractal Geometry (ICMS-Edinburgh, July 2023)
Thermodynamic Formalism for Geodesic flows (BIRS-Kenowla, Canada, July 2023)
Topological Methods in dynamics (Porto, October and December 2023)
Colloquio de Giorgi (Pisa, February 2024)
Computer-assisted proofs, proof assistants and visualization in dynamical systems (Pisa, June 2024)
Workshop on the Geometry of Deterministic and Random Fractals II (Budapest, June 2024)
Julia set and geometric complexity V (Bedlewo, July 2024)
Minicourse at Peking University (Beijing, September 2024)
Dynamical Systems, (PSU, State College, Pa. USA, November 2024)

I have been declining subsequent invitations due to family obligations.

In addition, I have given several hundred research seminars and colloquia at leading international universities and research institutes (e.g., Berkeley, Yale, IAS-Princeton, Chicago, UCLA, IHES, MPI-Bonn, IMPA-Brasil, Beijing, Tokyo, Orsay, Rennes, etc.)