Curriculum Vitae

Thomas Prellberg

Present Position and Address

Professor of Mathematics
School of Mathematical Sciences
Queen Mary University of London
Mile End Road, London E1 4NS, UK
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email: `t.prellberg@qmul.ac.uk`

Affiliations

Außerplanmäßiger Professor
Department of Theoretical Physics
Technical University Clausthal
38678 Clausthal-Zellerfeld, Germany

Professional Degrees

Technical University Clausthal, Germany:

Habilitation in Theoretical Physics (Dr. rer. nat. habil.), January 2002

"Lattice Models of Interacting Polymers and Vesicles"

Virginia Polytechnic Institute & State University (Virginia Tech), USA:

Ph.D. in Mathematical Physics (Dr. rer. nat.), June 1991

"Thermodynamic Formalism and Phase Transitions for Maps of the Interval with Indifferent Fixed Points"

M.S. in Mathematics, M.S. in Physics (Dipl.-Math., Dipl.-Phys.)

Technical University Braunschweig, Germany:

"Vordiplom" in Mathematics, March 1987
(pre Master examination)

"Vordiplom" in Physics, September 1985
(pre Master examination)

Personal Data

Born November 23, 1964
German citizen, married to US citizen, two children

Leadership Activities

Major roles

- Online Transition Lead and IT Academic Lead (2020 - present)
- Director of Global Engagement (2019 - present)
- Acting Head of School (Jan - Jun 2015)
- Deputy Head of School (2014 - 2015)
- Director of Taught Programmes (2011 - 2017)
- Member of School Executive Group (2011 - 2017)
- Elected Member of Senate (2009 - 2017, 2018 - present)
- Senior Tutor (2009-2011)

Selected other activities

- Scaling and Standards Settings Group (reporting to Senate)
- Research Ethics Panel (University)
- Assessment Offence Panel (University)
- Shanghai University/Confucius Institute Internal Steering Group (Faculty)
- Chair of IT Users Group (School)
- Chair of Alumni Working Group (School)
- Member of Head of School Advisory Group (School)

Current and Previous Positions

QUEEN MARY, UNIVERSITY OF LONDON, United Kingdom, School of Mathematical Sciences, 2004 – present

Professor since 2014, Reader since 2005, Senior Lecturer until 2005

TECHNICAL UNIVERSITY CLAUSTHAL, Germany, Dept. of Theoretical Physics, 2000 – 2004

Oberassistent (Senior Lecturer w/o tenure) since 2002
Wiss. Assistent (Lecturer w/o tenure) until 2001

SYRACUSE UNIVERSITY, USA, Department of Physics, 1999 – 2000

Visiting Assistant Professor

UNIVERSITY OF MANCHESTER, United Kingdom, Department of Theoretical Physics, 1996 – 1999

Research Associate

UNIVERSITY OF OSLO, Norway, Department of Mathematics, 1995 – 1996

Researcher (EU Postdoctoral Fellow)

UNIVERSITY OF MELBOURNE, Australia, Department of Mathematics, 1991 – 1994

Research Fellow

VIRGINIA TECH, USA, Department of Physics, 1991

Graduate Research Assistant

WEIZMANN INSTITUTE OF SCIENCE, Rehovot, Israel, 1989 – 1990

Visiting Scientist

DORNIER System GmbH, Friedrichshafen, Germany, March 1988

Intern in Division of Theoretical Physics

GSSE Corporation for System Technology, Braunschweig, Germany, March 1985

Programmer

SIEMENS Research and Development Center, Erlangen, Germany, Summer 1984

Intern in Division of Technical Physics

SIEMENS Railroad Signal Technology, Braunschweig, Germany, Summer 1983 and March 1984

Member of Process Control System Team

Grants and Awards

Special Visiting Researcher Fellowship under the Brazilian Scientific Mobility Programme "Ciencias seem Frontiers" 2015-2017 (R$ 38,000)

EPSRC Grant "A hybrid Monte Carlo algorithm for simulating phase transitions in dense polymer systems" 2014-2017 (GBP 262,000)

Associate Investigator, Centre of Excellence for Mathematics and Statistics of Complex Systems, University of Melbourne, 2004 – 2016

Visiting Fellow, The Australian National University, 2010

Honorary Visiting Fellow, University of Melbourne, 2010

Libra Visiting Professor of Diversity, University of Maine, 2008 (USD 15,000)

London Mathematical Society Scheme 2 Visitor Grant, 2006 (GBP 1200)

E-Learning Fellowship Grant "Improving student performance with web-based learning" 2006-2007 (GBP 4000)

Außerplanmäßiger Professor, TU Clausthal, since 2005

Royal Society Conference Grant for *Counting Complexity*, 2005 (GBP 1800)

Listed in *Who's Who in Science and Engineering*, 8th Edition (2005-2006)

DFG Grant "Relevance of the correct modelling of attractive and repulsive interactions in collapsing polymers: a comparative investigation of the extended Domb-Joyce model and related models," 2002 – 2004 (EUR 110,000)

DFG Conference Grant for *FPSAC 2002* (EUR 1300)

DAAD Grant "Combinatorics of random structures, analysis of algorithms, and dynamical systems," (French-German Collaborative Research Grant, Project Leader German Side) 2002 – 2003 (EUR 8000)

DFG Grant "Simulation of collapsing polymers," 2001 (EUR 3000)

Honorary Research Fellow, University of Melbourne, 1999 and 2001

Euro-Conference Travel Grant, 1995 (FF 2000 + local expenses)

Minerva Fellowship, Weizmann Institute, 1989 – 1990 (DM 24,000)

Exchange Program, Technische Universität Braunschweig – Virginia Tech, 1988 – 1989

Scholarship from the "Studienstiftung des Deutschen Volkes", 1985 – 1991

Ranked among the top ten German High School students in the competition for the International Physics Olympiad 1982

Research Interests

- Scaling Functions for Vesicle Models
- Polymers in Restricted Geometries
- Spectral Analysis of Transfer Operators
- The *Takeuchi-Prellberg*-Constant
- Iterative Functional Equations
- Asymptotic Enumerative Combinatorics
- Positivity Properties of q-Series
- Thermodynamics of Spin Chains
- Stochastic Flat-Histogram Algorithms
- Monte-Carlo Simulation of Polymers
- Phase Transitions in Polymer Systems
- Adsorbed and Collapsed Polymers
- Polymers in High Dimensions
- Micromechanical Deformation of Polymers

Research Student and Postdoctoral Supervision

Current:

none

Past:

Nathann T Rodrigues, visiting PhD Student (6 months), Theoretical Physics, Universidade Federal de Viçosa, 2018 – 2019

"Enumeration of Generalised Directed Lattice Paths in a Strip"
Anum Khalid, PhD Student, Applied Mathematics, Queen Mary University of London, 2014 – 2018

"Asymptotics and scaling analysis of 2-dimensional lattice models of polymers and vesicles"
Nils Haug, PhD Student, Applied Mathematics, Queen Mary University of London, 2013 – 2017

Andrea Cairoli, Postdoctoral Researcher, Queen Mary University of London, 2016

Arturo Narros Gonzales, Postdoctoral Researcher, Queen Mary University of London, 2014 – 2016

"Lattice path enumeration on restricted domains"
Paul Mortimer, PhD Student, Applied Mathematics, Queen Mary University of London, 2011 – 2015

"Walks on Graphs: From Randomness to Determinism"
Spyros Martzoukos, MPhil Student, Applied Mathematics, University of London, 2005 – 2007

"Non-Standard Period Doubling in a Piecewise Continuous Dynamical System"
Florian Großmann, Diploma thesis, Physics, Technische Universität Clausthal, 2004

Jaroslaw Krawczyk, Postdoctoral Researcher, Technische Universität Clausthal, 2002 – 2004

"On the Thermodynamic Formalism for the Farey Map"
Peter S. Dodds, Master thesis, Mathematics and Physics, University of Melbourne, 1994

"Multifractals, Thermodynamic Formalism and Intermittency"
Peter S. Dodds, Honours thesis, Mathematics and Physics, University of Melbourne, 1993

Summary of Publications

112 refereed publications (of these 5 publications in Phys. Rev. Lett.)

Journal of Physics A (29), Physical Review E (17), Journal of Statistical Physics (11), Physica A (11), Journal of Statistical Mechanics: theory and experiment (8), Physical Review Letters (5), Electronic Journal of Combinatorics (4), Australasian Journal of Combinatorics (2), Europhysics Letters (2), Journal of Combinatorial Theory A (2), Discrete Mathematics (2), Journal of Mathematical Physics (2), Review of Scientific Instruments, International Journal of Modern Physics C, Contributions to Discrete Mathematics, Computer Physics Communications, Communications in Mathematical Physics, EPJ Web of Conferences, European Physical Journal B, Mathematics of Computer Modelling, Nuclear Physics B, Journal of Physics: Conference Series, Discrete Mathematics and Theoretical Computer Science Proceedings, 7 publications in refereed conference proceedings

(a complete list can be found below)

Citations

Citations/h-index: 1820/22 (Google Scholar), 1288/20 (Web of Science) as of August 2019

Summary of Presentations

149 presentations, 12 posters

of these 39 invited conference talks and 2 plenary lectures

three summer school lecture series

conferences and workshops in: United Kingdom (15), USA (15), Australia (14), Germany (12), Canada (7), France (6), Denmark (2), Norway (2), Austria (2), Algeria (1), Brazil (1), Greece (1), Israel (1), Italy (1), Netherlands (1), Taiwan (1)

seminars und colloquia in: USA (32), Germany (16), United Kingdom (13), France (6), Australia (6), Brazil (4), Canada (3), Norway (1), Poland (1), Ireland (1)

(a complete list can be found below)

Conference Organisation

FPSAC 2017 conference on *Formal Power Series and Algebraic Combinatorics*
– Queen Mary University of London, July 2017 (Chair of Organizing Committee)

Means, Methods and Results in the Statistical Mechanics of Polymeric Systems II: A 3-day workshop in honour of Stuart Whittington's 75th birthday
– Toronto, June 2017

QMUL-Warwick workshop on *Combinatorial Probability and Statistical Mechanics*
– Queen Mary University of London, February 2013

LDSG Workshop on Symbolic Dynamics and Number Theory in Statistical Mechanics
– Queen Mary University of London, February 2006

Oxford-Warwick-London Workshop on Combinatorics and Statistical Mechanics
– Queen Mary University of London, November 2005

Teaching Experience

• Semester 2, 2020/2021 (Queen Mary): Introduction to Computer Programming (2nd year Undergraduate)
• Semester 2, 2019/2020 (Queen Mary): Introduction to Computer Programming (2nd year Undergraduate)
• Semester 1, 2019/2020 (Queen Mary): Topics in Scientific Computing (MSc)
• Semester 2, 2018/2019 (Queen Mary): Introduction to Computer Programming (2nd year Undergraduate)
• Semester 1, 2018/2019 (Queen Mary): Essential Mathematical Skills (1st year Undergraduate)
• 2011-2017 reduced teaching due to major administrative role, 2017-2018 sabbatical
• Semester 2, 2013/2014 (London Taught Course Centre): Enumerative Combinatorics and Models of Polymers (PhD)
• Semester 1, 2013/2014 (Queen Mary): Introduction to Probability (1st year Undergraduate)
• Semester 1, 2012/2013 (Queen Mary): Dynamical Systems (MSc)
• Summer 2012 (Oldenburg summer school): Lectures on Stochastic Growth Algorithms (MSc/PhD)
• Semester 1, 2011/2012 (Queen Mary): Dynamical Systems (MSc)
• Summer 2011 (Oldenburg summer school): Lectures on Stochastic Growth Algorithms (MSc/PhD)
• Semester 2, 2010/2011 (Queen Mary): Differential and Integral Analysis (2nd year Undergraduate)
• Semester 2, 2009/2010 (Queen Mary): Differential and Integral Analysis (2nd year Undergraduate)
• Semester 2, 2008/2009 (Queen Mary): Differential and Integral Analysis (2nd year Undergraduate)
• Summer 2008 (ESI Vienna summer school): Lectures on Combinatorial Enumeration (PhD)
• Semester 2, 2007/2008 (Queen Mary): Mathematical Problem Solving (3rd year Undergraduate)
• Semester 1, 2007/2008 (Queen Mary): Calculus I (1st year Undergraduate)
• Semester 2, 2006/2007 (Queen Mary): Mathematical Problem Solving (3rd year Undergraduate)
• Semester 1, 2006/2007 (Queen Mary): Calculus I (1st year Undergraduate)
• Semester 2, 2005/2006 (Queen Mary): Mathematical Problem Solving (3rd year Undergraduate)
• Semester 1, 2005/2006 (Queen Mary): Complex Variables (2nd year Undergraduate)
• Semester 2, 2004/2005 (Queen Mary): Mathematical Problem Solving (3rd year Undergraduate)
• Semester 1, 2004/2005 (Queen Mary): Complex Variables (2nd year Undergraduate)
• WS 2003/2004 (Clausthal): Theoretical Physics I: Classical Mechanics (2nd year Undergraduate)
• SS 2003 (Clausthal): Non-linear Dynamics and Chaos (2nd year Undergraduate)
• WS 2002/2003 (Clausthal): Special Functions of Mathematical Physics (2nd year Undergraduate)
• SS 2002 (Clausthal): Mathematical Methods in Physics II (1st year Undergraduate)
• WS 2001/2002 (Clausthal): Mathematical Methods in Physics I (1st year Undergraduate)
• Spring 2000 (Syracuse): Introduction to Solid State Physics (MSc)
• Fall 1999 (Syracuse): Mathematical Methods in Theoretical Physics (MSc)

Organised and Supervised Tutorials for all Core Curriculum Courses in Theoretical Physics:

• Mathematical Methods I/II, Classical Mechanics, Electrodynamics, Quantum Theory I/II, Statistical Physics

Refereeing and Advising Activity

I have refereed for (in alphabetical order): American Mathematical Monthly, Annals of Combinatorics, Ars Combinatoria, Australasian Journal of Combinatorics, Bulletin of the Institute of Combinatorics and Its Applications, Cambridge University Press, Central European Journal of Physics, Communications in Mathematical Physics, Communications of the Korean Mathematical Society, Chaos: An Interdisciplinary Journal of Nonlinear Science, Chaos Solitons & Fractals, Computer Physics Communications, Discrete Applied Mathematics, Discrete Mathematics, Discrete Mathematics and Theoretical Computer Science, Electronic Journal of Combinatorics, Entropy, Ergodic Theory and Dynamical Systems, Europhysics Letters, European Journal of Combinatorics, Fractals, Graphs and Combinatorics, International Scholarly Research Notices, ISRN Discrete Mathematics, Journal of Chemical Physics, Journal of Combinatorics, Journal of Combinatorial Theory A, Journal of Mathematical Chemistry, Journal of Physics A, Journal of Physics: Condensed Matter, Journal of Symbolic Computation, Journal of Statistical Mechanics: theory and experiment, Journal of Statistical Physics, Macromolecules, Mathematical Reviews, Modern Physics Letters B, Nature Communications, New Journal of Physics, Nonlinearity, Nuclear Physics B, Oxford University Press, Philosophical Magazine & Philosophical Letters, Physica A, Physical Review B, Physical Review E, Physical Review Letters, Rendiconti del Circolo Matematico di Palermo Series 2, SIAM Journal on Discrete Mathematics, The European Physical Journal B, Thermochimica Acta, Utilitas Mathematica

EPSRC (Full Member of EPSRC College), MRC, NSERC, Studienstiftung des Deutschen Volkes, Swiss National Science Foundation, The Royal Society

External Examiner, University of Kent (Applied Mathematics), 2019-present

PIMS Collaborative Research Group in Applied Combinatorics, 2014-2016 (scientific committee)

FPSAC 2016 conference on *Formal Power Series and Algebraic Combinatorics* (programme committee)

Guest Editor for a 2017 issue of J. Phys. A celebrating Stu Whittington

Membership in Professional Societies

I am a member of: American Mathematical Society (AMS), International Association of Mathematical Physicists (IAMP, life-time membership since 2010), London Mathematical Society (LMS)

I was a member of: German Physical Society (DPG, until 2010), American Physical Society (APS, until 2010)

Other Activities

"Experiences with E-Learning in the Teaching of Calculus"
- Mathematics Colloquium, University of Maine, November 2008
- *E-learning Case Studies*, Queen Mary University of London, March 2008

"Automatic Assessment and Feedback"
- *Learning and Teaching Day*, Queen Mary University of London, November 2007

"Improving Student Performance with Web-based Learning and Assessment"
- *Learning and Teaching Day*, Queen Mary University of London, November 2007 (poster)

"An Interview with a German Physicist"
- Radio Interview with SBS Australia, July 2002

Publications

119 N. T. Rodrigues, T. J. Oliveira, T. Prellberg, and A. L. Owczarek, "Adsorption of 2d polymers with two- and three-body self-interactions," Phys. Rev. E **100** (2019) 062504

118 A. Khalid and T. Prellberg, "Skew Schur Function Representation of Directed Paths in a Slit," J. Comb., in print

117 A. Khalid and T. Prellberg, "Enumerating path diagrams in connection with q-tangent and q-secant numbers," submitted to Eur. J. Comb.

116 N. T. Rodrigues, T. Prellberg, and A. L. Owczarek, "Adsorption of interacting self-avoiding trails in two dimensions," Phys. Rev. E **100** (2019) 022121 — *Editors' suggestion*

115 C. J. Bradly, A. L. Owczarek and T. Prellberg, "Phase transitions in solvent dependent polymer adsorption in three dimensions," Phys. Rev. E **99** (2019) 062113

114 A. L. Owczarek and T. Prellberg, "Exact solution of pulled, directed vesicles with sticky walls in two dimensions," J. Math. Phys. **60** (2019) 033301

113 C. J. Bradly, A. L. Owczarek and T. Prellberg, "Adsorption of neighbor-avoiding walks on the simple cubic lattice," Phys. Rev. E **98** (2018) 062141

112 N. Haug and T. Prellberg, "Multicritical Scaling in a Lattice Model of Vesicles," submitted to Europhys. Lett.

111 C. J. Bradly, A. L. Owczarek and T. Prellberg, "Universality of crossover scaling for the adsorption transition of lattice polymers," Phys. Rev. E **97** (2018) 022503

110 A. Narros, A. L. Owczarek and T. Prellberg, "Anomalous polymer collapse winding angle distributions," J. Phys. A **51** (2018) 114001

109 T. J. Oliveira, W. G. Dantas, T. Prellberg and J. F. Stilck, "Solution of semi-flexible self-avoiding trails on a Husimi lattice built with squares," J. Phys. A **51** (2018) 054001

108 W. G. Dantas, T. J. Oliveira, J. F. Stilck and T. Prellberg, "Grand-canonical solution of semi-flexible self-avoiding trails on the Bethe lattice," Phys. Rev. E **95** (2017) 022132

107 N. Haug, A. Olde Daalhuis and T. Prellberg,"Higher-order Airy scaling in deformed Dyck paths," J. Stat. Phys. **166** (2017) 1193

106 N. Haug, T. Prellberg and G. Siudem,"Scaling in area-weighted generalised Motzkin paths," Physica A **482** (2017) 611

105 A. Narros, A. L. Owczarek and T. Prellberg, "Winding angle distributions for two-dimensional collapsing polymers," J. Phys.: Conf. Ser. **686** (2016) 012007

104 E. Dagrosa, A. L. Owczarek and T. Prellberg, "Writhe-induced phase transition in unknotted self-avoiding polygons," JSTAT (2017) 093206

103 E. Dagrosa, A. L. Owczarek and T. Prellberg, "Phase diagram of twist storing lattice polymers in variable solvent quality," JSTAT (2017) 103204

102 A. Bedini, A. L. Owczarek and T. Prellberg, "The role of three-body interactions in two-dimensional polymer collapse," J. Phys. A **49** (2016) 214001

101 E. J. Janse van Rensburg and T. Prellberg, "Forces and pressures in adsorbing partially directed walks," J. Phys. A **49** (2016) 205001

100 N. Haug and T. Prellberg, "Uniform Asymptotics of area-weighted Dyck paths," J. Math. Phys. **56** (2015) 043301

99 A. Bedini, A. L. Owczarek and T. Prellberg, "Self-attracting polymers in two dimensions with three low-temperature phases," J. Phys. A **50** (2017) 095003

98 J. Krawczyk, A. L. Owczarek, and T. Prellberg, "A Semi-flexible attracting-segment model of three-dimensional polymer collapse," Physica A **431** (2015) 74

97 P. R. G. Mortimer and T. Prellberg, "On the Number of Walks in a Triangular Domain," Electron. J. Combinat. **22** (2015) P1.64

96 E. Dagrosa, A. L. Owczarek and T. Prellberg, "Writhe-induced knotting in a lattice polymer," J. Phys. A **48** (2015) 065002

95 A. L. Owczarek and T. Prellberg, "Pressure exerted by a vesicle on a surface," J. Phys. A **47** (2014) 215001

94 A. Bedini, A. L. Owczarek and T. Prellberg, "Lattice polymers with two competing interactions," J. Phys. A **47** (2014) 145002

93 A. Bedini, A. L. Owczarek and T. Prellberg, "Numerical simulation of a lattice polymer model at its integrable point," J. Phys. A **46** (2013) 265003

92 A. Bedini, A. L. Owczarek and T. Prellberg, "Semi-flexible interacting self-avoiding trails on the square lattice," Physica A **392** (2013) 1602-1610

91 A. Bedini, A. L. Owczarek and T. Prellberg, "Weighting of topologically different interactions in a model of two-dimensional polymer collapse," Phys. Rev. E **87** (2013) 012142

90 E. J. Janse van Rensburg and T. Prellberg, "The pressure of adsorbing directed lattice paths and staircase polygons," J. Phys. A **46** (2013) 115202

89 T. Prellberg, "Rare event sampling with stochastic growth algorithms," EPJ Web of Conferences **44** (2013) 01001

88 A. Bedini, A. L. Owczarek and T. Prellberg, "Self-avoiding trails with nearest neighbour interactions on the square lattice," J. Phys. A **46** (2013) 08500

87 P. R. G. Mortimer and T. Prellberg, "A Bijection on Bilateral Dyck Paths," Australas. J. Combinat. **59** (2014) 72-80

86 T. Prellberg, "The Combinatorics of the Leading Root of the Partial Theta Function," preprint

85 H. Touchette, T. Prellberg, and W. Just, "Exact power spectra of Brownian motion with solid friction," J. Phys. A **45** (2012) 395002

84 T. Prellberg, "From Rosenbluth Sampling to PERM - rare event sampling with stochastic growth algorithms," in R. Leidl and A. K. Hartmann (eds), Modern Computational Science 12: Lecture Notes from the 4th International Oldenburg Summer School, pages 311-334, BIS-Verlag der Carl von Ossietzky Universität Oldenburg, 2012

83 A. L. Owczarek and T. Prellberg, "Exact Solution of a model of a vesicle attached to a wall subject to mechanical deformation," J. Phys. A **45** (2012) 395001

82 A. Bedini, A. L. Owczarek and T. Prellberg, "Anomalous critical behaviour in the polymer collapse transition of three-dimensional lattice trails," Phys. Rev. E **86** (2012) 011123

81 R. Brak, G. Iliev, and T. Prellberg, "An infinite family of adsorption models and restricted Lukasiewicz paths," J. Stat. Phys. **145** (2011) 669-685

80 J. Osborn and T. Prellberg, "Exact solution of two non-crossing partially directed walks with contact interaction," in preparation

79 A. L. Owczarek and T. Prellberg, "Enumeration of area-weighted Dyck paths with restricted height," Australas. J. Combinat. **54** (2012) 13-18

78 J. Doukas, A. L. Owczarek and T. Prellberg, "Identification of a polymer growth process with an equilibrium multi-critical collapse phase transition: the meeting point of swollen, collapsed and crystalline polymers," Phys. Rev. E **82** (2010) 031103

77 J. Bastian, T. Prellberg, M. Rubey, and C. Stump, "Counting the number of elements in the mutation classes of $\tilde{A}_n$-quivers," Electron. J. Combinat. **18** (2011) P98

76 A. L. Owczarek and T. Prellberg, "Exact Solution of the Discrete (1+1)-Dimensional RSOS Model in a Slit with Field and Wall Interactions," J. Phys. A **43** (2010) 375004

75 A. L. Owczarek and T. Prellberg, "A simple model of a vesicle drop in a confined geometry," JSTAT (2010) P08015

74 A. L. Owczarek and T. Prellberg, "Exact Solution of the Discrete (1+1)-Dimensional RSOS Model with Field and Surface Interactions," J. Phys. A **42** (2009) 495003

73 J. Osborn and T. Prellberg, "Forcing Adsorption of a Tethered Polymer by Pulling," JSTAT (2010) P09018

72 S. Corteel, M. Josuat-Vergès, T. Prellberg, and M. Rubey, "Matrix Ansatz, lattice paths and rook placements," DMTCS proc. **AK** (2009), 313-324

71 A. L. Owczarek and T. Prellberg, "Scaling of the atmosphere of self-avoiding walks," J. Phys. A **41** (2008) 375004

70 J. Krawczyk, A. L. Owczarek, and T. Prellberg, "A Semi-flexible attracting-segment model of two-dimensional polymer collapse," Physica A **389** (2010) 1619-1624

69 J. Krawczyk, A. L. Owczarek, and T. Prellberg, "Semi-flexible hydrogen-bonded and non-hydrogen bonded lattice polymers," Physica A **388** (2009) 104-112

68 R. Brak, P. Dyke, J. Lee, A. L. Owczarek, T. Prellberg, A. Rechnitzer, and S. G. Whittington, "A self-interacting partially directed walk subject to a force," J. Phys. A, J. Phys. A **42** (2009) 085001

67 K. M. Briggs, L. Song, and T. Prellberg, "A note on the distribution of the maximum of a set of Poisson random variables," preprint

66 P. J. Cameron, D. Johannsen, T. Prellberg, and P. Schweitzer, "Counting defective parking functions," Electron. J. Combinat. **15** (2008) R92

65 A. L. Owczarek and T. Prellberg, "Exact solution of semi-flexible and super-flexible interacting partially directed walks," Journal of Statistical Mechanics: theory and experiment, JSTAT (2007) P11010

64 R. F. Bailey and T. Prellberg, "Decoding generalized octahedral groups and asymptotic analysis of successful error-correction," Contrib. Discrete Math. **7** (2012) 1-14

63 A. L. Owczarek, A. Rechnitzer, J. Krawczyk, and T. Prellberg, "On the location of the surface-attached globule phase in collapsing polymers," J. Phys. A **40** (2007) 13257-13267

62 P. Cameron, T. Prellberg, and D. Stark, "Asymptotic enumeration of 2-covers and line graphs," Discrete Mathematics **310** (2010) 230-240

61 E. J. Janse van Rensburg, T. Prellberg, and A. Rechnitzer, "Directed paths in a wedge," J. Phys. A **40** (2007) 14069-14084

60 E. J. Janse van Rensburg, T. Prellberg, and A. Rechnitzer, "Partially directed paths in a symmetric wedge," Proceedings of the *2007 International Conference on Formal Power Series and Algebraic Combinatorics*

59 J. Krawczyk, A. L. Owczarek, and T. Prellberg, "The competition of hydrogen-like and isotropic interactions in polymer collapse," Journal of Statistical Mechanics: theory and experiment, JSTAT (2007) P09016

58 O. F. Bandtlow, J. Fiala, P. Kleban, and T. Prellberg, "Asymptotics of the Farey Fraction Spin Chain Free Energy at the Critical Point," J. Stat. Phys. **138** (2010) 447-464

57 E. J. Janse van Rensburg, T. Prellberg, and A. Rechnitzer, "Partially directed walks in a wedge," J. Comb. Th. A **115** (2008) 623-650

56 J. Krawczyk, A. L. Owczarek, T. Prellberg, and A. Rechnitzer, "A Lattice Model for Parallel and Orthogonal β-Sheets using Hydrogen-Like Bonding," Phys. Rev. E **76** (2007) 051904; selected for Virt. J. Biol. Phys. Res. **14** (2007)

55 A. L. Owczarek, T. Prellberg, and A. Rechnitzer, "Finite-size scaling functions for directed polymers confined between attracting walls," J. Phys. A **41** (2008) 035002

54 A. L. Owczarek and T. Prellberg, "Collapse transition of self-avoiding trails on the square lattice," Physica A **373** (2007) 433-438

53 J. Krawczyk, T. Prellberg, A. L. Owczarek, and A. Rechnitzer, "Self-avoiding random walk with multiple site weightings and restrictions," Phys. Rev. Lett. **96** (2006) 240603; selected for Virt. J. Biol. Phys. Res. **12** (2006)

52 P. Cameron, T. Prellberg, and D. Stark, "Asymptotic enumeration of incidence matrices," J. Phys.: Conf. Ser. **42** (2006) 59-70

51 P. Cameron, T. Prellberg, and D. Stark, "Asymptotics for incidence matrix classes," Electron. J. Combinat. **13** (2006) R85

50 J. Krawczyk, A. L. Owczarek, T. Prellberg, and A. Rechnitzer, "Pulling adsorbing and collapsing polymers off a surface," Journal of Statistical Mechanics: theory and experiment, JSTAT (2005) P05008

49 J. Krawczyk, A. L. Owczarek, T. Prellberg and A. Rechnitzer, "Layering transitions for adsorbing polymers in poor solvents," Europhys. Lett. **70** (2005) 726-732

48 J. Krawczyk, T. Prellberg, A. L. Owczarek, and A. Rechnitzer, "Stretching of a chain polymer adsorbed at a surface," Journal of Statistical Mechanics: theory and experiment, JSTAT (2004) P10004

47 T. Prellberg, J. Krawczyk, and A. Rechnitzer, "Polymer simulations with a flat histogram stochastic growth algorithm," *Computer Simulation Studies in Condensed Matter Physics XVII*, pages 122-135, Springer Verlag, 2006

46 T. Prellberg, P. Kleban, and J. Fiala, "Cluster approximation for the Farey fraction spin chain," J. Stat. Phys. **123** (2006) 455-471

45 T. Prellberg and J. Krawczyk, "Flat histogram version of the pruned and enriched Rosenbluth method," Phys. Rev. Lett. **92** (2004) 120602; selected for Virt. J. Biol. Phys. Res. **7** (2004)

44 T. Prellberg and A. L. Owczarek, "Polymer Collapse in High Dimensions: Monte Carlo Simulation of Lattice Models," in *Computer Simulation Studies in Condensed Matter Physics XVI*, pages 147-151, Springer Verlag, 2004

43 A. L. Owczarek and T. Prellberg, "Scaling near the θ-point for isolated polymers in solution," Phys. Rev. E **67** (2003) 032801

42 A. L. Owczarek and T. Prellberg, "Monte Carlo Investigation of Lattice Models of Polymer Collapse in Five Dimensions," Int. J. Mod. Phys. C **14** (2003) 621-633

41 T. Prellberg and D. Stanton, "Proof of a Monotonicity Conjecture," J. Comb. Th. A **103** (2003) 377-381

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5 A. L. Owczarek, T. Prellberg, and R. Brak, "New Scaling Form for the Collapsed Polymer Phase," Phys. Rev. Lett. **70** (1993) 951-953

4 A. J. Guttmann and T. Prellberg, "Staircase polygons, Elliptic integrals, Heun functions and Lattice Green functions," Phys. Rev. E **47** (1993) R2233-2236

3 A. L. Owczarek and T. Prellberg, "Exact Solution of the Discrete (1+1)–dimensional SOS Model with Field and Surface Interactions," J. Stat. Phys. **70** (1993) 1175-1194

2 T. Prellberg and J. Slawny, "Maps of Intervals with Indifferent Fixed Points: Thermodynamic Formalism and Phase Transitions," J. Stat. Phys. **66** (1992) 503-514

1 H. Harborth, P. Oertel, and T. Prellberg, "No–Three–In–Line for Seventeen and Nineteen," Discrete Mathematics **73** (1988-1989) 89-90

Presentations

"Adsorption of 2d polymers with two- and three-body self-interactions"
– *21st International NTZ-Workshop on New Developments in Computational Physics*, Leipzig, Germany, December 2020

"Exact solution of pulled, directed vesicles with sticky walls in two dimensions"
– *Open Statistical Physics*, Milton Keynes, United Kingdom, March 2019

"Lattice Path Counting: where Enumerative Combinatorics and Statistical Mechanics meet"
– *Genomics, Pattern Avoidance, and Statistical Mechanics*, Schloss Dagstuhl - Leibniz Center for Informatics, Germany, November 2018 (invited opening talk)

"The leading root of the Partial Theta function, the q-Airy function, and the Painlevé Airy function"
– Number Theory Seminar, University of Florida, USA, March 2018

"Multiple Intermittency and q-State Spin Chains"
– Topology and Dynamics Seminar, University of Florida, USA, March 2018

"Basic hypergeometric expressions for q-Tangent and q-Secant Numbers"
– Number Theory Seminar, University of Florida, USA, February 2018

"Universality of crossover scaling for the adsorption transition of lattice polymers"
– *Recent Developments in Computer Simulation Studies*, Athens, Georgia, USA, February 2018 (Kurt Binder talk)

"Schur Function Representation of Generalised Directed Paths in a Slit"
– Combinatorics Seminar, University of Florida, USA, February 2018

"Counting Path Diagrams: q-Tangent and q-Secant Numbers"
– Combinatorics Seminar, University of Florida, USA, January 2018

"Exact and Approximate Counting"
– Mathematics Colloquium, University of New Haven, Connecticut, USA, February 2018
– Physics Colloquium, Universidade Federal de Minas Gerais, Belo Horizonte, Brazil, October 2017
– Physics Colloquium, Universidade Federal Fluminense, Niteroi, Brazil, October 2017
– Inaugural Lecture, Queen Mary University of London, UK, March 2017

"Higher-order multicritical points in two-dimensional lattice polygon models"
– Number Theory Seminar, University of Florida, USA, March 2018
– *Lattice walks at the Interface of Algebra, Analysis and Combinatorics*, Banff International Research Station, Canada, September 2017 (invited talk)

"Winding angle distributions of interacting polymers"
– Physics Seminar, Universidade Federal Fluminense, Niteroi, Brazil, August 2017
– *Means, Methods and Results in the Statistical Mechanics of Polymeric Systems II*, Toronto, Canada, June 2017 (invited talk)
– *Recent Developments in Computer Simulation Studies*, Athens, Georgia, USA, February 2017 (invited talk)

"An overview of polymer sampling methods"
– Center for Simulational Physics, University of Georgia, Athens, Georgia, USA, August 2015
– *VIIIth Brazilian Meeting on Simulational Physics*, Florianopolis, Brazil, August 2015 (invited talk)
– Physics Colloquium, Universidade Federal Fluminense, Niteroi, Brazil, July 2015
– *Combinatorial Applications to Biology, Chemistry, and Physics*, Saskatoon, Canada, June 2014 (invited talk)

"On the number of walks in a triangular domain"
– Combinatorics Seminar, University of Florida, USA, February 2018
– *2014 SIAM Conference on Discrete Mathematics*, Minneapolis, USA, June 2014 (invited talk)

"The combinatorics of the leading root of Ramanujan's (and related) functions"
– Number Theory Seminar, University of Florida, USA, August 2015
– Mathematics Colloquium, University of Kent, United Kingdom, January 2014
– *Combinatorics, Algebra, and More: a Conference in Celebration of Peter Cameron*, Queen Mary University of London, United Kingdom, July 2013 (invited talk)

"The pressure of surface-attached polymers and vesicles"
– *Open Statistical Physics*, Milton Keynes, United Kingdom, March 2016
– *SigmaPhi 2014*, Rhodes, Greece, July 2014 (invited talk)
– *Workshop on "Combinatorial Physics"*, Cardiff University, United Kingdom, December 2013 (invited talk)
– *Workshop on "Random Polymers"*, Eurandom, Eindhoven, The Netherlands, January 2013 (invited talk)

"Ground states in the hydrophobic-polar model of protein folding"
– *Summerschool on "Modern Computational Science (MCS): optimization"*, Oldenburg, Germany, August 2012 (series of invited lectures)

"Rare event sampling with stochastic growth algorithms"
– *1st International Conference on Numerical Physics*, Oran, Algeria, October 2012 (invited plenary talk)
– *Canadian Applied and Industrial Mathematics Annual Meeting, CAIMS 2012*, Toronto, Canada, June 2012 (invited talk)

"Anomalous critical behaviour in the polymer collapse transition of lattice trails"
– *Open Statistical Physics*, Milton Keynes, United Kingdom, March 2012

"Dyck Paths as Vesicle Models"
– *Means, Methods and Results in the Statistical Mechanics of Polymeric Systems*, Toronto, Canada, June 2012 (invited talk)
– School of Mathematics, Cardiff University, United Kingdom, February 2012

"From Rosenbluth Sampling to PERM - rare event sampling with stochastic growth algorithms"
– *Summerschool on "Modern Computational Science (MCS): simulation of rare and extreme events"*, Oldenburg, Germany, August 2011 (series of invited lectures and tutorials)

"Multiple intermittency and q-state spin chains"
– *Seminar and Workshop on "Weak Chaos, Infinite Ergodic Theory, and Anomalous Dynamics"*, MPIPKS, Dresden, Germany, July/August 2011 (invited talk)

"Exact solution of two non-crossing partially directed walks with contact interaction"
– *Open Statistical Physics*, Milton Keynes, United Kingdom, March 2011

"PERM and all that - a comparison of growth algorithms"
– Department of Theoretical Physics, Technische Universität Braunschweig, Germany, April 2011
– *Workshop on Monte Carlo Algorithms in Statistical Physics*, Melbourne, Australia, July 2010 (invited talk)

"The Farey fraction spin chain in a magnetic field"
– *STATPHYS 24*, Cairns, Australia, July 2010

"Forcing adsorption of a tethered polymer by pulling"
– *Workshop on Statistical Physics of Lattice Paths*, Melbourne, Australia, July 2010 (invited talk)
– *Open Statistical Physics*, Milton Keynes, United Kingdom, March 2010

"Computing scaling functions for two-dimensional vesicle models: from generating functions to coalescing saddle point asymptotics"
– *Workshop on Combinatorics and Mathematical Physics*, Brisbane, Australia, July 2010
– *Maxwell Institute Colloquium*, Edinburgh, United Kingdom, December 2009 (invited talk)

"Area-perimeter generating functions of lattice walks"
– *Workshop on Discrete Systems and Special Functions*, Isaac Newton Institute, Cambridge, United Kingdom, July 2009 (invited talk)

"A self-interacting partially directed walk subject to a force"
– *100th Statistical Mechanics Meeting*, Rutgers, New Jersey, USA, December 2008

"Walks in wedges and crossings of matchings"
– Discrete Mathematics Seminar, University of British Columbia, Vancouver, Canada, October 2008

"Car Parking and Combinatorics"
– Kolloquium Mathematische Physik, Technische Universität Clausthal, Germany, August 2009
– *AMS Sectional Meeting, Special Session on Algorithmic Probability and Combinatorics*, Vancouver, Canada, October 2008 (invited talk)
– Combinatorics Seminar, University of Vermont, Burlington, USA, September 2008
– Mathematics Colloquium, University of Maine, Orono, USA, September 2008

"Combinatorial Enumeration with the Kernel Method"
– *Summerschool on Combinatorics and Statistical Mechanics*, Erwin Schrödinger Institute, Vienna, Austria, July 2008 (series of invited lectures and tutorials)

"Counting Defective Parking Functions"
– Combinatorics Seminar, University of Florida, Gainesville, USA, November 2008
– Combinatorics Seminar, Dartmouth College, Hanover, USA, September 2008
– Combinatorics Seminar, Massachusetts Institute of Technology, Boston, USA, September 2008
– *Workshop on Combinatorics and Statistical Mechanics*, Erwin Schrödinger Institute, Vienna, Austria, May 2008 (invited talk)

"Enumerating Walks with the Kernel Method"
– *Workshop on Statistical-Mechanics and Quantum-Field Theory Methods in Combinatorial Enumeration*, Isaac Newton Institute, Cambridge, United Kingdom, April 2008 (invited talk)

"Enumerating partially directed paths in a symmetric wedge"
– *Workshop on Combinatorial Identities and their Applications in Statistical Mechanics*, Isaac Newton Institute, Cambridge, United Kingdom, April 2008 (invited talk)
– *From Higman-Sims to Urysohn: a random walk through groups, graphs, designs, and spaces*, Ambleside, United Kingdom, August 2007 (poster)
– Kolloquium Mathematische Physik, Technische Universität Clausthal, Germany, April 2007

"The Mathematics of the Casimir Effect"
– Sigma Club (philosophy of physics seminar), London School of Economics, United Kingdom, June 2010
– Physics Colloquium, University of Maine, Orono, USA, September 2008
– *Annual Lectures*, School of Mathematical Sciences, Queen Mary, United Kingdom, February 2007 (invited talk)

"The Farey Fraction Spin Chain: Effects of an External Field"
– Department of Mathematics and Statistics, University of Melbourne, Australia, September 2007
– *LMS Durham Symposium: Dynamical Systems and Statistical Mechanics*, Durham, United Kingdom, July 2006 (invited talk)

"Simulating Models of Polymer Collapse"
– *STATPHYS 23*, Genoa, Italy, July 2007 (poster)
– *Workshop on Sampling Paths in Molecular Simulation*, Universite d'Orsay Paris-Sud, France, November 2006 (invited talk)
– *16. Workshop on Lattice Field Theory and Statistical Physics*, Coventry, United Kingdom, June 2006 (invited talk)
– School of Computational Science, FSU, Tallahassee, USA, April 2006

"Combinatorial Enumeration of Two-Dimensional Vesicles - a Review"
– *Combinatorics and Statistical Mechanics Meeting*, London, United Kingdom, November 2005 (invited talk)

"Asymptotic enumeration of incidence matrices"
– Department of Mathematics, Technische Universität Clausthal, Germany, September 2005
– *Counting Complexity: An International Workshop on Statistical Mechanics and Combinatorics*, Dunk Island, Australia, July 2005 (invited talk)

"Polymer simulations with a new Monte-Carlo algorithm"
- *Workshop on Rugged Free Energy Landscapes*, CECAM Lyon, France, June 2005 (invited talk)
- Theoretical Condensed Matter Seminar, University of Oxford, United Kingdom, February 2005
- *94th Statistical Mechanics Meeting*, Rutgers, New Jersey, USA, December 2004 (invited talk)
- *Symposium "Theorie der Polymere an Grenzfl"achen,"*, IPF Dresden, Germany, November 2004 (invited talk)
- Applied Mathematics Seminar, Open University, Milton Keynes, United Kingdom, July 2004
- Kolloquium in Theoretical Physics, Technische Universität Darmstadt, Germany, May 2004

"From parabolic fixed points to asymptotic enumeration"
- *Workshop on Holomorphic Dynamics*, Warwick, United Kingdom, December 2004

"Cluster Approximation for the Farey Fraction Spin Chain"
- Dynamical Systems Seminar, Manchester, United Kingdom, October 2005
- Department of Mathematics, Universität Bielefeld, Germany, September 2005
- Dynamical Systems Seminar, Warwick, United Kingdom, January 2005
- Center for Nonlinear Science, Georgia Tech, USA, February 2004

"A flat histogram stochastic growth algorithm"
- *Recent Developments in Computer Simulation Studies*, Athens, Georgia, USA, February 2004 (invited talk)
- Theoretical Physics, Hahn-Meitner-Institut, Berlin, Germany, January 2004
- Institute for Theoretical Physics, Universität Göttingen, Germany, January 2004

"Monotonicity of Partition functions"
- Department of Mathematics, Royal Holloway, University of London, United Kingdom, October 2004
- Department of Mathematics, Ernst-Moritz-Arndt-Universität, Greifswald, Germany, September 2003

"New Developments in Stochastic Growth Algorithms"
- *92nd Statistical Mechanics Meeting*, Rutgers, New Jersey, USA, December 2003
- *Monte Carlo in Complex Systems*, AMSI, Australia, November 2003 (invited talk)
- INRIA Rocquencourt, Versailles, France, October 2003
- Department of Physics, University of Maine, Orono, USA, July 2003
- John-Von-Neumann Institute for Computing, FZ Jülich, Jülich, Germany, May 2003
- *Lattice Models of Polymers*, Banff International Research Station, Canada, May 2003 (invited talk)

"Monte Carlo Investigation of Lattice Models of Polymer Collapse in High Dimensions"
- Department of Physics, University of Florida, Gainesville, USA, March 2003
- *APS March Meeting*, Austin, USA, Texas, March 2003
- *Recent Developments in Computer Simulation Studies*, Athens, Georgia, USA, February 2003
- Computational Science and Information Technology, FSU, Tallahassee, USA, February 2003

"A proof of the Monotonicity Conjecture by Friedman, Joichi, and Stanton"
- *Conference on Number Theory and Combinatorics in Physics*, Gainesville, USA, March 2003 (invited talk)
- *Kolloquium über Kombinatorik*, Magdeburg, Germany, November 2002

"Spectral Analysis of Transfer Operators associated with Intermittency"
- Department of Mathematics, University of Florida, Gainesville, USA, March 2003
- *APS March Meeting*, Austin, USA, Texas, March 2003
- Center for Nonlinear Science, Georgia Tech, USA, February 2003
- Université de Caen, France, September 2002

"Combinatorial Enumeration of Two-Dimensional Vesicles - a Review"
– INRIA Rocquencourt, Versailles, France, September 2002

"On the Asymptotic Analysis of Formal Power Series Solutions of a Class of Functional Equations"
– Department of Mathematics, Heriot-Watt University, Edinburgh, United Kingdom, October 2002
– *FPSAC 2002*, Melbourne, Australia, July 2002 (invited plenary talk)
– Department of Mathematics, University of Florida, Gainesville, USA, March 2002

"Pseudo-First-Order Transition in Interacting Self-avoiding Walks and Trails"
– *CCP 2001*, Aachen, Germany, September 2001 (poster)

"On the Asymptotic Analysis of a Class of Linear Recurrences"
– INRIA Rocquencourt, Versailles, France, September 2002
– Department of Mathematics and Statistics, University of Melbourne, Australia, April 2001
– *Kolloquium über Kombinatorik*, Braunschweig, Germany, November 2000

"Viscoelastic Depinning of Driven Systems"
– Department of Physics, University of Manchester, United Kingdom, October 2002
– *APS March Meeting*, Minneapolis, Minnesota, USA, March 2000
– *82nd Statistical Mechanics Meeting*, Rutgers, New Jersey, USA, December 1999

"First-order scaling near a second-order phase transition: Tricritical polymer collapse"
– John-Von-Neumann Institute for Computing, FZ Jülich, Jülich, Germany, September 2000
– Department of Physics, University of Rochester, Rochester, New York, USA, February 2000
– Department of Physics, Clarkson University, Potsdam, New York, USA, October 1999
– Department of Physics, Syracuse University, Syracuse, New York, USA, September 1999

"Partition Function Asymptotics for Two–Dimensional Vesicles"
– *Symbolic Computation Conference*, Gainesville, Florida, USA, November 1999 (invited talk)
– *STATPHYS 20*, Paris, France, July 1998 (poster)

"Asymptotics of Takeuchi Numbers"
– Department of Mathematics, York University, Toronto, Canada, October 1999
– Department of Mathematics, Royal Holloway & Bedford College, United Kingdom, February 1998
– Department of Mathematics and Statistics, University of Melbourne, Australia, March 1998

"Winding Angles for Two–Dimensional Oriented Polymers and Theta–Point Universality"
– *STATPHYS 20*, Paris, France, July 1998

"Dynamics of a Single Particle in a Horizontally Shaken Box"
– Department of Physics, University of Florida, Gainesville, USA, July 1998
– Institut für Experimentalphysik, Universität Magdeburg, Germany, April 1998
– HLRZ, Forschungszentrum Jülich, Germany, November 1997
– Dept. of Engineering Mathematics, University of Bristol, United Kingdom, November 1997

"Winding Angle Distributions for Oriented Two–Dimensional Polymers"
– *Statistical Mechanics Conference*, King's College London, United Kingdom, June 1997
– *Condensed Matter Workshop*, University of Birmingham, United Kingdom, May 1997 (poster)
– *Physics of Complex Systems*, Bar Ilan University, Israel, April 1997 (poster)

"Combinatorial Enumeration of Polyominoes"
– *Probability and Statistical Mechanics*, BRIMS, Bristol, United Kingdom, November 1996 (invited talk)
– Department of Mathematical Physics, University College Dublin, Ireland, May 1996

"The Statistical Mechanics of Vesicles"
– INRIA Rocquencourt, Versailles, France, October 1995
– *Physique et Combinatoire*, CIRM Luminy, Marseille, France, March 1995 (invited talk)
– Matematisk Felleskollokvium, University of Oslo, Oslo, Norway, March 1995
– *59. Frühjahrstagung der DPG*, Berlin, Germany, March 1995 (poster)

"The Tricritical Scaling Function of Partially Directed Vesicles"
– INRIA Rocquencourt, Versailles, France, October 1995

"Uniform q-Series Asymptotics for Staircase Polygons"
– Department of Mathematics, University of Florida, Gainesville, USA, June 1995
– Mathematisches Kolloquium, Technische Universität Braunschweig, Germany, November 1994
– Department of Mathematics, University of York, Toronto, Canada, November 1994
– Department of Mathematics, Pennsylvania State Univ., College Park, USA, November 1994
– Department of Mathematics, University of South Florida, Tampa, USA, October 1994
– Department of Physics, University of Florida, Gainesville, USA, October 1994

"The Spectrum of an Intermittency Transfer Operator"
– *Dynamics Days*, Melbourne, Australia, June 1994 (with P. Dodds)

"Critical Exponents from Non-Linear Functional Equations"
– *Confronting the Infinite: Mathematical Physics at Adelaide*, Australia, February 1994

"Θ-point Trails and Lorentz Lattice Gas Models"
– SCRI, Florida State University, Tallahassee, USA, January 1994
– Department of Physics, University of New South Wales, Sydney, Australia, November 1993
– *Statistical Mechanics Meeting*, Canberra, Australia, November 1993

"Kinetic Growth Walks and Polymer Collapse"
– Department of Mathematics, LaTrobe University, Melbourne, Australia, December 1993

"Interacting Partially Directed Self-Avoiding Walks: An Exact Solution of a Collapse Transition"
– *The Second Taipei International Symposium on Statistical Physics*, Taipei, Taiwan, August 1993
– *Combinatorial Workshop*, Bordeaux, France, June 1993
– *The Lars Onsager Symposium*, Trondheim, Norway, June 1993
– Department of Theoretical Physics, University of Tübingen, Germany, July 1993
– Department of Mathematical Physics, Nikolas Kopernikus Univ., Torun, Poland, June 1993
– Department of Mathematics, University of Adelaide, Australia, May 1993
– *Fundamental Problems in Statistical Mechanics VIII*, Altenberg, Germany, July 1993 (poster)

"Solid-on-Solid Model of Wetting: Exact Solution with q-series"
– *The Lars Onsager Symposium*, Trondheim, Norway, June 1993 (poster)

"Staircase Polygons, Elliptic Integrals, Heun Functions and Lattice Green Functions"
– *29th Australian Applied Mathematics Conference*, Hahndorf, Australia, February 1993

"Exact Solution of the Discrete (1+1)–dimensional SOS Model with Field and Surface Interactions"
– *Statistical Mechanics Meeting*, Melbourne, Australia, November 1992
– *STATPHYS 18*, Berlin, Germany, August 1992 (poster)
– *The State of Matter*, Copenhagen, Denmark, July 1992 (poster)

"Phase Transitions and Critical Exponents for Maps of Intervals with Indifferent Fixed Points"
– *STATPHYS 18*, Berlin, Germany, August 1992
– *10th National Congress of the AIP*, Melbourne, Australia, February 1992
– *The State of Matter*, Copenhagen, Denmark, July 1992 (poster)

"Exact Solutions of Directed Walk and Polygon Models: q–Bessel Functions, Continued Fractions, and Asymptotics"
– Department of Mathematical Physics, Technische Universität Clausthal, Germany, August 1992
– Department of Theoretical Physics, Technische Universität Braunschweig, Germany, August 1992

"Thermodynamic Formalism, Inducing, and Phase Transitions for Maps of Intervals with Indifferent Fixed Point"
– *Statistical Mechanics Meeting*, Canberra, Australia, November 1991
– *64th Statistical Mechanics Meeting*, Rutgers, New Jersey, USA, December 1990