CURRICULUM VITAE

PERSONAL

ROBERT J. ADLER

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EDUCATION

| 1967 - 1971 | B.Sc. (First class honours), University of Sydney |
|-------------|---|
| 1972 | M.Sc. Australian National University |
| 1973 - 1975 | Ph.D. University of New South Wales |

EMPLOYMENT

| 1972 | Research Officer, Australian Bureau of Statistics |
|--------------|---|
| 1973 - 1975 | Graduate student/TA, Univ. of New South Wales |
| 1976 | CSIRO Postdoctoral Fellow, Tel-Aviv and Cambridge |
| 1977 | Research Scientist, CSIRO |
| 1978 - 1979 | Queen Elizabeth II Research Fellow, University of NSW |
| 1980 - 1985 | Associate Professor, Technion |
| 1986- | Professor, Technion, Industrial Eng. and Management |
| 1996 - 1999 | Professor, University of North Carolina, Chapel Hill |
| 1996- | Louis and Samuel Seiden Academic Chair (Technion) |
| 2008-2010 | Professor, Technion. 50% Indust. Eng. Management, 50% Electrical Eng. |
| 2010-2018 | Professor, Technion. 100% Electrical Engineering |
| 2018–The End | Professor Emeritus, Technion. |
| The End – | Extinguished Professor |
| | |

VISITING APPOINTMENTS (Month or longer)

| University of New South Wales | 1982 (Summer), 2008 (Aug-Oct) |
|---|--|
| Cornell University | 1983 (Summer), 1991 (Nov), 1993 (Feb) |
| University of Washington | 1984 (Summer), 1986 (Jan-July) |
| University of Lund | 1988 (Feb) |
| Carleton University | 1989 (Feb), 1992 (Feb) |
| Math. Sciences Research Institute, Berkeley | 1991 (Dec), 1997 (Aug–Nov), 1998 (Feb) |
| Stanford University | 2004 (Jan–Mar) |
| University of California, Santa Barbara | 1990 (Feb), 1991-95 (summers) |
| | 2003/4 (Sept-Mar) |
| University of North Carolina, Chapel Hill | 1979 (Jan–May), 1985 (Aug–Dec) |
| | Adjunct Professor, 1999–2003 |
| Institut Mittag-Leffler, Stockholm | 2007 (Oct-Dec) |
| Harvard University | 2008 (Jan-June) |
| National University of Singapore | 2008 (June-July) |
| Université Blaise Pascal | 2009 (July) |
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PRIZES AND AWARDS

| (a) Grants (non-' | Technion) |
|-------------------|---|
| 1981 | Office for the Absorption of New Scientists (\$10,000) |
| | Random Fields. |
| 1983 - 1991 | U.S. Air Force Office of Scientific Research (\$259,250) |
| | Random Fields, Theory and Application. |
| 1987 - 1990 | U.S. Israel Binational Science Foundation (\$101,200) |
| | Set Indexed Empirical Processes. (Joint with R. Pyke) |
| 1990 - 1993 | U.S. Israel Binational Science Foundation (\$63,000) |
| | Stable Processes—Theory and Applications. |
| | (Joint with M. Taqqu and G. Samorodnitsky) |
| 1990 - 1993 | Israel Academy of Sciences (\$85,000) |
| | Distribution and Measure Valued Processes. |
| 1991 - 1993 | Office of Naval Research (\$286,693) |
| | Gaussian and Related Random Fields. (Co-PI. Raisa Feldman, PI) |
| 1993 - 1996 | U.S. Israel Binational Science Foundation (\$78,000) |
| | Non-Markov and Self-Avoiding Superprocesses. |
| | (Joint with J. Rosen and G. Samorodnitsky) |
| 1993 - 1996 | Israel Academy of Sciences (\$72,000) |
| | Interaction in Superprocesses. |
| 1993 - 1996 | Office of Naval Research (\$478,130) |
| | Problems in Heavy Tailed Distributions. (Co-PI. Raisa Feldman, PI) |
| 1996 | Office of Naval Research (\$79,000) |
| | Computation and Visualisation of Random Surfaces. |
| 1996 - 1999 | U.S. National Science Foundation (\$120,000) |
| | Building on Superprocesses. |
| 1998 - 2001 | Israel Science Foundation (\$154,875) |
| | The Topology of Random Fields. |
| 2001 - 2005 | U.S. Israel Binational Science Foundation (\$60,000) |
| | Interacting Particle Systems and Superprocesses. |
| | (Joint with Leonid Mytnik and Rick Durrett) |
| 2005 - 2009 | U.S. Israel Binational Science Foundation (\$88,000) |
| | Random Fields over Manifolds: Some Geometry, Theory and Applications. |
| | (Joint with Gennady Samorodnitsky and Jonathan Taylor) |
| 2008 - 2011 | U.S. National Science Foundation (\$199,276) |
| | The Algebraic Topology of Random Fields and its Applications. |
| | (Joint with Jonathan Taylor, Shmuel Weinberger, Keith Worsley) |
| 2009 - 2013 | U.S. Israel Binational Science Foundation (\$96,000) |
| | The Geometry of Random Field Excursions: Statistics and Probability. |
| | (Joint with Samuel Kou, Gennady Samorodnitsky and Jonathan Taylor) |
| 2010 - 2014 | Israel Science Foundation (\$188,000) |
| | An Algebraic Approach to Random Field Topology. |
| 2011 - 2014 | U.S. Air Force Office of Scientific Research (\$210,000) |
| | SATA: Stochastic Algebraic Topology and Applications. |
| 2012-2015 | EU FET Proactive Award ($\textcircled{C2,625,310}$. Technion part, $\textcircled{C498,000}$) |
| 0010 0010 | TOPSYS: Topological Complex Systems |
| 2013-2018 | ERC Advanced Grant (€1,904,000) |
| | URSAT: Understanding Random Systems via Algebraic Topology |

| 2014 - 2016 | U.S. Air Force Office of Scientific Research (\$140,000) |
|-------------|---|
| | SATA II: Stochastic Algebraic Topology and Applications. |
| 2017 - 2021 | Israel Science Foundation & Natural Science Foundation of China |
| | (Technion part, \$292,000) |
| | Random geometry over manifolds. |

(b) Selected Honours

| 1968 - 1969 | Commonwealth Undergraduate Scholarship |
|-------------|--|
| 1970 - 1971 | Bureau of Statistics Cadetship |
| 1973 - 1975 | Commonwealth Postgraduate Research Award |
| 1976 | CSIRO Postdoctoral Fellowship |
| 1978 - 1979 | Queen Elizabeth II Research Fellowship |
| 1985 - | Member (elected) International Statistical Institute |
| 1989– | Fellow, Institute of Mathematical Statistics |
| 1994 | Technion Academic Excellence Award |
| 1996- | Louis and Samuel Seiden Academic Chair (Technion) |
| 1997 | IMS Medallion Lecturer |
| 2000 | Special Invited Paper, Annals of Applied Prob, 10, 2000, 1–74. |
| 2006 | Birnbaum Lecture, University of Washington |
| 2006 | PIMS 10th Anniversary Distinguished Lecture, Calgary. |
| 2009 | Saint Flour Lecturer. |
| 2013 | Special Invited Lecture, European Meeting of Statisticians. |
| 2013 | ERC Advanced Grant. |
| 2014 | Henry Taub Prize for Academic Excellence. |
| 2015 | de Rahm Lecture of the Swiss Doctoral Programme |
| 2016 | British Mathematics Colloquium, Plenary Lecture. |

MAJOR PROFESSIONAL ACTIVITIES

Editorial

- 1. Stochastic Processes and Their Applications, 1993–1995, Editor.
- 2. Annals of Applied Probability, 2003-2005, Editor.

EDITORIAL BOARDS

- 1. Stochastic Processes and Their Applications, 1989–1993, 1996–2000, Associate editor.
- 2. Bulletin of the Institute of Mathematical Statistics, 1989–1996, Corresponding editor.
- 3. Advances in Applied Probability, 1990–2008, Associate editor.
- 4. Journal of Applied Probability, 1990–2008, Associate editor.
- 5. Annals of Probability, 2000–2002, Associate editor.
- 6. IMS/Bernoulli Monograph Series. 2000–2002, Member of Management Committee.
- 7. IMS Festschrift Advisory Panel, Co-chair, 2009–2012.
- 8. Bulletin of the Institute of Mathematical Statistics, Contributing editor, 2014–2016.
- 9. Journal of Applied and Computational Topology, Member of Scientific Board, 2016-

CONFERENCE ORGANISATION

- 1. Twentieth Conference on Stochastic Processes and their Applications, Israel, 1991 Chair of Organising and Program Committees.
- 2. Twenty-second Conference on Stochastic Processes and Their Applications, Amsterdam, 1993, Member of Program Committee.
- 3. 57th Annual Meeting of IMS and 3rd Bernoulli Society World Congress, Chapel Hill, 1994, Member of Program Committee.
- 4. Workshop on Stable Time Series, Santa Barbara, 1995, Co-chair of Organising Committee.
- 5. Workshop on Non-Linear Time Series for Learning, Prediction and Control, Technion, 1998, Co-organiser.
- 6. IMS workshop on Geometry and Random Fields, Dallas, 1998, Organiser.
- 7. Fourth International Symposium on Probability and its Applications, July 2002, Banff, Canada. Invited session organiser and chair, Gaussian processes on manifolds.
- 8. Thirtieth Conference on Stochastic Processes and their Applications, Santa Barbara, July, 2005, Program Committee.
- 9. Stochastic Models: Theory and Applications, Carmiel, Israel, 2006, Program Committee.
- 10. Fifth International Symposium on Probability and its Applications of the IMS, Rio de Janeiro, July 2006, Program Commitee Co-chair.
- 11. XXVI International Seminar on Stability Problems for Stochastic Models, Carmiel, October, 2007. Program Committee Co-chair.
- 12. 7-th World Congress in Probability and Statistics Singapore, July 2008. Invited session organiser and chair, Gaussian processes and their applications.
- 13. Random Fields and Stochastic Geometry, Banff, Canada, February 2009. Co-Organiser.
- 14. American Institute of Mathematics workshop on 'Topological Complexity of Random Sets', Palo Alto, California, August 2009. Co-Organiser.
- 15. WAART: Workshop in Algebraic and Random Topology, Chicago, April 2010. Co-Organiser.
- 16. IMS Annual Meeting, Gothenburg, August 2010. Invited session organiser and chair, Neuroscience, imaging and random fields.
- January 2012, AMS Short Course on Random Fields and Random Geometry, AMS Annual Meeting, Boston. Co-organiser.
- October 2013, IMA Tutorial: An Introduction to Statistics and Probability for Topologists, Organiser.
- 19. October 2013, IMA Workshop on Topological Data Analysis. Co-organiser.
- 20. February 2014: SAMSI workshop on LDHD: Topological Data Analysis, Co-organiser.
- June, 2015, DyToComp (Dynamics, Topology and Computations), Bedlewo, Poland. Member, Scientific Committee.

- 22. June 2015, Extreme Value Analysis, EVA15, Ann Arbor, Michigan. Member, Scientific Committee.
- 23. Summer/Fall 2016, Thematic Semester on Probabilistic Methods in Geometry, Topology, and Spectral Theory. Centre de Recherches Mathématiques, Montreal. Member, International Scientific Committee.
- 24. June 2018, DyToComp (Dynamics, Topology and Computations), Bedlewo, Poland. Member, Scientific Committee.
- 25. May 2019, Geometric Data Analysis, Stevanovich Center, U. Chicago. Scientific Organising Committee
- 26. June 2019, Conference on Stochastic Processes and their Applications (SPA), Evanston, Illinois. Member, Scientific Program Committee

Selected Committees

- 1. Bernoulli Society Council, 1985–1989, Member.
- Committee for Conferences in Stochastic Processes, 1984–1993, 1997–2001, Member; 2001–2003, Chair.
- 3. IMS Nominations Committee, 1987, 1990, 2012 Member.
- 4. Bernoulli Society Publications Committee, 1993–1996, Member.
- 5. Israel Statistical Association Nominations Committee, 1995, Member.
- 6. Bernoulli Society Nominations Committee, 1999–2002, Member.
- Israel Science Foundation: Grant Evaluation Committees, 2003/4, 2010/11, 2012/13, 2015/16, Member.
- 8. IMS Committees on Publications and Special Lectures, 2002–2005, Member (Ex officio).
- 9. Loève Prize Committee, Member. 2005–8.
- 10. IMS Council, 2002–2005, Member (Ex officio).
- 11. IMS Publications Committee, Chair. 2007–2009.
- 12. ICIAM/IMS/IMU Committee on Quantitative Assessment of Research, 2007-2008.
- 13. IMS Memorials Committee, Member, 2009–2010.
- 14. Council for Higher Education, Committee for the evaluation of Statistics studies in Israel, Member, 2009-10, Chair of Follow-up Committee, 2012.
- 15. US-Israel Binational Science Foundation: Evaluation Committee for Applied Mathematics, 2010/11, Chair.
- 16. Council for Higher Education, Scholarship committee for ultra-orthodox graduate students, 2019-22. Member.

Refereeing, etc.

Have refereed for (at least – but somewhere in the 1980's I gave up keeping count – so this list is so out of date as to be useless (but I keep it for sentimental reasons)) the following journals: Annals of Probability, Journal of Applied Probability, Advances in Applied Probability, Journal of Multivariate Analysis, Annals of Statistics, Australian Journal of Statistics, Stochastic Processes and Their Applications, Zeitschrift fur Wahrscheinlichkeitstheorie, SIAM Journals, Zeitschrift für Mathematik, Studia Mathematica, Proceedings of the American Math Soc, IEEE Trans. Inf. Theory, Probability and Statistics Letters, Stochastics, Sankya, American J. Mathematics, etc, etc.

INDUSTRIAL RESEARCH

- 1. Time series modelling and forecasting of economic indicators Australian Bureau of Statistics (1972).
- 2. Stochastic process models of pulsar signal reception and of rough, metallic, surfaces. CSIRO (1977).

MAJOR TECHNION ACTIVITIES

| 81– | Inumerable Faculty committees, including, at various times, chair of |
|---------------------------------|--|
| | Faculty building and library commitees, Faculty research center, |
| | membership in graduate and undergraduate studies committees, etc etc. |
| | It never ends, even after retirement |
| 81-85, 86-91 | Organized inter-faculty (Industrial Eng., Electrical Eng., Mathematics) |
| | seminar on Probability Theory and Stochastic Processes. |
| 86–90, 99–00 | Head, Probability and Statistics Area. |
| 88–91 | Member, Standing Committee on Graduate & Undergraduate Studies |
| 88-89, 92-93, 06-07 | Member, Senate Standing Committee on Senior Appointments & Tenure. |
| 90-96, 05-07, 10-16 | Member and often Head, Technion Synagogue Committee. |
| 93–95 | Member, Governance Committee. |
| 98 | Member, Provost Search Committee. |
| 98-99, 00-01 | Associate Dean for Academic Affairs. |
| $99-00,\ 02-03,\ 09-10,\ 15-17$ | Rotating Head of Professional Committees. |
| 00-01, 08-10 | Member, Senate Steering Committee. |
| 01-03, 06-07 | Member, Senate Standing Committee for Honorary Degrees. |
| 02–03 | Member, Senate Preparatory Committee for Distinguished Professors |
| 06-07, 08-10, 16-17 | Elected member, Technion Senate. |
| 13 - 15 | Member, Ad-Hoc Committee for the Appointment of Non-Professorial EVP's |
| 14 - 16, 16 - 18 | Presidential Appointment Committee, member. |
| 14 - 17 | Council of Technion Board of Governors: Professorial representative. |
| 14 - 17 | Academic Committee of Technion Board of Governors, Member. |
| 16 - 17 | Chair of Professional Committee, Harvey Prize in Science and Technology. |
| 18–19 | Ad Hoc Committee for Technion Code of Ethics, Member. |

SUPERVISION OF GRADUATE STUDENTS

(Current position appended, where known.)

- Richard Wilson (Ph.D.) Statistics, University of New South Wales, 1983. Senior Fellow (Hon), Statistics, University of Queensland.
- Michael Aronowich (D.Sc.) IE&M, Technion, 1985. Data Scientist, NCR Corporation.
- Gennady Samorodnitsky (D.Sc.) IE&M, Technion, 1986, Professor, OR&IE, Cornell University.
- 4. Raisa Feldman (née Epstein) (D.Sc.) Mathematics, Technion, 1987. Past Chair, Statistics & Applied Probability, UC, Santa Barbara.
- 5. Michael Nahum (M.Sc.) IE&M, Technion, 1990.
- 6. Mordechai Zagha (M.Sc.) IE&M, Technion, 1991.
- Leonid Mytnik (M.Sc.) IE&M, Technion, 1993. Professor, IE&M, Technion.
- Tamar Gadrich (D.Sc.) IE&M, Technion, September, 1993. Head, Industrial Engineering and Management, Ort Braude College, Carmiel.
- 9. Lydia Ivanitskaya (M.Sc.) IE&M, Technion, 1994.
- Leonid Mytnik (D.Sc.) IE&M, Technion, 1996. Professor, Data and Decision Sciences, Technion.
- 11. Assaf Zeevi (M.Sc.) IE&M,Technion, 1996. (Joint with Ron Meir.) Henry Kravis Professor of Business, Columbia University.
- 12. Radu Rosu (M.Sc.) Statistics, UNC Chapel Hill, 1999.
- Georgios Skoulakis (Ph.D.) Statistics, UNC Chapel Hill, 1999. Associate Professor, Banking and Financial Management, U Piraeus.
- 14. Guillame Bonnet (Ph.D.) Statistics, UNC Chapel Hill, 2001. Google, Mountain View, CA.
- 15. Jonathan Taylor (Ph.D.) Statistics, McGill, 2001. (Co-supervisor Keith Worsley, McGill). Professor, and Chair, Statistics, Stanford.
- Sreekar Vadlamani, (PhD) IE&M, Technion, 2007. Reader, TIFR Centre for Applicable Mathematics, Bangalore.
- Omer Bobrowski, (PhD) EE, Technion, 2012.
 Associate Professor, Electrical Engineering, Technion, Senior Lecturer, Mathematics, Queen Mary, University of London.
- Eliran Subag, (MSc) EE, Technion. 2013. Weizmann Institute.
- Gregory Naitzat, (MSc) EE Technion. 2015.
 PhD Student, Statistics, University of Chicago.

- 20. Yonatan Rozmarin, (MSc) EE Technion. 2016. Software developer, BillRun.
- Sunder Ram Krishnan (PhD) EE Technion. 2017. Assistant Professor, Mathematics, IIT, Dharwad, India

SUPERVISION OF POSTDOCTORAL SCHOLARS

(Most recent known position appended, where known.)

- Nathalie Eisenbaum, 1988–89. Professor, Chargé de Recherche, Université Paris Descartes
- Patrik Albin, 1989. Reader, Chalmers University of Technology.
- 3. Marica Lewin, 1990–92.
- 4. Sergei Lyalko, 1990–93. Computing, private sector, Canada.
- Roger Tribe, 1992–93. Associate Professor (Reader), Mathematics, University of Warwick.
- Srikanth Iyer, 1994–96. Professor, Statistics, Indian Institute of Science, Bangalore.
- John Verzani, 1994–95. Professor and Chair, Mathematics, CUNY, Staten Island.
- 8. Aaron Gross, 1994–95. Financial computing, private sector, Tel Aviv.
- 9. Ekaterina Todorova Kolkovska, 2000. Investigador Titular B, Mathematics, CIMAT, Mexico.
- Xiang Kai Nan, 2002–2003. Professor, Mathematics, Nankai University, China.
- Sreekar Vadlamani, 2009–2010. Reader, TIFR Centre for Applicable Mathematics, Bangalore.
- Elina Moldavskaya, 2010–2012. Researcher, Aeronautical Engineering, Technion.
- Yogeshwaran Dhandapani, 2011–2014. Associate Professor, Indian Statistical Institute, Bangalore.
- 14. Michael Lesnick, Summer 2012. Assistant Professor, SUNY, Albany.
- Anthea Monod, 2012–2014. Lecturer, Mathematics, Imperial College London.
- Takashi Owada, 2013–2016. Associate Professor, Statistics, Purdue.

- Antonio Rieser, 2013–2015. CONACYT Research Fellow, Centro de Investigación en Matemáticas, Guanajuato.
- Moshe Cohen, 2014–2016. Assistant Professor, Mathematics, SUNY, New Platz.
- Katherine Turner, Summer, 2015. Senior Lecturer, Math Sciences Institute, ANU.
- 20. Gugan Thoppe, 2015–2017. Assistant Professor, Computer Science and Automation, IIS, Bengaluru.
- Pratyush Pranav, 2015–2017. Postdoctoral Research Fellow, Ecole Normale Supérieure de Lyon.
- Sarit Agami, 2015–2018. Lecturer, Hebrew University, Jerusalem.
- 23. Kartick Adhikari, 2018–2020 (Jointly with Omer Bobrowski and Ron Rosenthal) Assistant Professor, IISER Bhopal.
- 24. Efe Onaran, 2020–2023. (Jointly with Omer Bobrowski) Postdoctoral Research Fellow, Coordinated Science Laboratory, Urbana-Champaign.

SUMMER AND WINTER SCHOOLS, MINI-COURSES, etc.

- 1. December 2000, Four lecture minicourse on *Random Fields and their Geometry*, CRM Workshop on Mathematical Methods in Biology and Medicine, Montreal.
- 2. June 2001, Six lecture minicourse on *Random Fields and their Geometry*, The 22nd Finnish Summer School on Probability Theory. Lahti, Finland
- 3. June 2003, Five lecture minicourse on Random Fields and (Differential) Geometry, Probability Intern Program, Madison, Wisconsin.
- July, 2005, International Centre of Excellence for Education in Mathematics, Graduate School, Brisbane. 15 lecture course on *Random Fields and Geometry*. Available online at http://qtss.amsi.org.au/qtmedia/UQGradSchoolAdler.html.
- 5. November 2007, Three lectures on Random Fields on Manifolds, Kinematic Formulae, and Integral Geometry in Gauss Space, Institute Mittag-Leffler, Stockholm.
- 6. July 2009, XXXVIII-th International Probability Summer School, Saint-Flour. 12 hour lecture course on *Topological Complexity of Random Functions*.
- January 2012, AMS Short Course on Random Fields and Random Geometry, AMS Annual Meeting, Boston. (Joint with Jonathan Taylor.)
- 8. October 2013, IMA Tutorial on *Statistics and Probability for Topologists*, IMA, Minnessotta.
- 9. June 2014, Short course on *Topology of Random Morse Functions*, CIEM (International Centre for Mathematical meetings), Castro Urdiales, Spain. (Cancelled due to illness)

10. August 2015. Short course on An Introduction to Random Topology, Stochastic Geometry Workshop, Poitiers, France.

PARTICIPATION IN INTERNATIONAL CONFERENCES

Plenary and invited talks only

- 1. September 1981, 14th European Meeting of Statisticians, Wroclaw. Level crossings for certain non-Gaussian processes and fields.
- 2. December 1981, 43rd Meeting of the International Statistical Institute, Buenos Aires. Random field models in surface science.
- 3. March, 1982, Joint Israeli-British Meeting on Stochastic Modelling, Brighton. *Random Fields.*
- 4. August 1982, 6th Meeting of the Australian Statistical Society, Melbourne: Random fields and rough surfaces: An example of the interaction of theory and practice.
- 5. August 1983, 185th Meeting of the Institute of Mathematical Statistics, Toronto. Some sample path properties of random fields.
- 6. June 1984, 14th Conference on Stochastic Processes and their Applications, Gothenburg. *Tail behaviour for the suprema of empirical processes.*
- 7. March 1986, Pacific Northwest Probability Meeting, Seattle. A Markov process approach to the study of Fock space.
- 8. February 1987, Israel Mathematical Society Annual Meeting, Tel Aviv. Multivariate Kolmogorov-Smirnov statistics; An example of the interaction of Statistics and Functional Analysis.
- 9. May 1988, Australian Joint Mathematics Meeting, Canberra. Quantum field theory and experimental design.
- 10. May 1989, Workshop on Markov Processes in Functional Spaces, Ithaca, NY. The net charge process for interacting signed diffusions.
- 11. July 1990, London Mathematical Society Durham Symposium: Stochastic Analysis, Durham, England. Intersection local time for distribution and measure valued processes.
- 12. August 1990, Second World Congress of the Bernoulli Society, Uppsala, Sweden. *Random Fields* (Session organiser).
- 13. November 1991, Special Program on Empirical Processes and their Applications, Mathematical Sciences Research Institute, Berkeley. A menagerie of measure valued diffusions.
- 14. March 1992, 1992 Seminar on Stochastic Processes, Seattle. Particle pictures for superprocess local times.
- 15. June 1992, 223rd Meeting of the Institute of Mathematical Statistics, Corvallis, Oregon. The expected number of level crossings for stationary, harmonisable, symmetric, stable processes.

- 16. October 1992, Special Meeting on Superprocesses and Interacting Systems, Montreal. Particle pictures for superprocess intersection local times.
- 17. April 1993: ONR Oceanographic Meeting, Los Angeles. Gaussian and related random fields: A tutorial overview.
- 18. September 1993, France-Israel Binational Symposium on the Brownian Sheet. Tel-Aviv. Superprocesses with memory
- 19. December 1994, Conference in Memory of Stamatis Cambanis, Athens, Greece. Some extensions of superprocesses.
- 20. April 1996, Applied Probability Day, Columbia University, New York. Building on superprocesses.
- 21. October 1996, AMS Southeastern Sectional Meeting, Special Session on Applied Probability, Chattanooga, Tennesee. Non-linear models for time series using mixtures of experts.
- 22. January 1997, AMS Joint Mathematics Meeting, Special Session on Stochastic Modelling, Random measure models for some oceanographic phenomena.
- 23. January 1997, Aha Huliko'a Workshop on "Methods from Theoretical Physics Applied to Oceanography", Honolulu, *Superprocesses and plankton dynamics*.
- 24. July 1997, 60th IMS Annual Meeting, Park City, Utah. "Special Invited (IMS Medallion) Lecture" Random Fields: Geometry in Action.
- 25. August 1997: Workshop on SPDE, UBC, Vancouver, Superprocesses, The Movie.
- 26. September 1997, Workshop on Stochastic Partial Differential Equations, (MSRI-Evans lecture) Berkeley, *Super Menageries*.
- 27. June, 1998: Workshop on Statistics of Brain Mapping, Montreal, Euler characteristics and exceedence probabilities.
- 28. August 1988, Workshop on "Extremes—Risk and Safety", Gothenburg, Euler characteristics and exceedence probabilities.
- 29. May 1999, Israel Statistical Association Annual Meeting, Tel Aviv. Shape analysis with applications.
- 30. June 1999, Applications of Heavy Tailed Distributions in Economics, Engineering and Statistics, Washington, DC. Nonlinear time series via mixtures of autoregressions.
- 31. September 2000, Topics in Modern Stochastic Analysis, Toronto, Canada. *The Burgers Superprocess*.
- 32. March 2001, Symposium on Discrete and Continuous Stochastic Evolutions, Warwick, England. The geometry of Gaussian fields on manifolds.
- 33. May 2002, Fourth Conference on Stochastic Analysis, Random Fields and Applications, Ascona, Switzerland. *Gaussian random fields on manifolds*
- 34. September 2003, Alcalá International Conference on Mathematical Ecology, Spain, Why do plankton cells aggregate: a view from superprocesses.

- 35. September 2003, Stochastic Partial Differential Equations, Banff, Canada. Some new results in random field geometry.
- 36. November 2003, Southern California Probability Symposium, Los Angeles, *Random fields* on manifolds.
- 37. July 2004, Sixth Bernoulli World Congress and the IMS Annual Meeting, Barcelona, *Extrema of random fields*.
- 38. August 2005, Fourth Conference on Extreme Value Analysis, Gothenburg, Random fields over manifolds.
- 39. October 2005, Twenty-seventh Midwest Probability Colloquium, Evanston. Random Fields on Manifolds (two lectures) and A tutorial on Lipschitz-Killing curvature and Weyl's tube formula, (two lectures).
- 40. June 2006, Extremes in Action (Conference in Honour of Georg Lindgren), Lund, Sweden. Rice and Geometry
- 41. June 2006, Statistics at the Frontiers of Science, Banff International Research Station. *Rice and Geometry.*
- 42. October 2006, The Eigth Northwest Probability Seminar, (Birnbaum Lecture) Seattle. Integral geometry in Gauss spaces.
- 43. October 2006, PIMS 10th Anniversary Distinguished Lecture Series, Calgary. *The brain, the universe, and random processes on manifolds.*
- 44. July 2007, The Fifth Conference on Extreme Value Analysis Probabilistic and Statistical Models and their Applications, Bern, Switzerland. Some geometry for stable random fields.
- 45. November 2007, Applications of Partial Differential Equations, Stockholm, Sweden. On quantifying shape, with two applications to stochastic processes.
- 46. January 2009, CRM Workshop on Random Functions, Random Surfaces and Interfaces, Montreal, Canada. A kinematic formula for Gaussian excursions.
- 47. January 2009, Workshop on Models and Images for Porous Media, Paris, France. From statistics to topology and back again.
- 48. June, 2010, ATMCS 4, Applied Topology: Methods, Computation, and Science 2010, Münster, Germany. From statistics to topology and back again, via the Gaussian kinematic formula.
- December 2010. Borrowing Strength: Theory Following Applications. A Conference In Honor of Larry Brown's 70-th Birthday. U. Penn, Philadelphia. Persistent homology, probability and statistics.
- 50. June 2011. Workshop on Applied Algebraic Topology, ETH, Zürich. Random fields and random geometry
- 51. October 2011. Computational Methods in Applied Sciences, Columbia. New York, Persistent homology, probability and statistics.
- 52. November 2011. Workshop on Computational Topology, Fields Institute, Toronto.

- 53. February, 2012. American Association for the Advancement of Science, Annual Meeting. Vancouver. A common topological approach to randomness in the structure of brains and the cosmos.
- 54. July, 2012. Workshop on Manifolds of Metrics and Probabilistic Methods in Analysis and Geometry, CRM Montreal. Some Results in Random Algebraic Topology.
- 55. September 2012. Big Bang, Big Data, Big Computers Workshop on the computer science and statistics of contemporary Cosmic Microwave Background data analysis. Paris. From mean Euler characteristics to the Gaussian kinematic formula.
- 56. May 2013. Annual Meeting of the Israel Statistical Association. Tel Aviv. Keynote address. *Topological inference: A new/old way of thinking about data*.
- 57. June 2013. Probabilistic and Statistical Techniques for Cosmological Applications. Rome. Cosmology and (random) topology: Is CMB really defined on a sphere?.
- July, 2013. 29th European Meeting of Statisticians, Special Invited Lecture, Budapest. Topological Inference: A Challenge for Probability and Statistics. (Cancelled due to illness)
- 59. August, 2013. Joint Statistical Meeting, Montreal. *Keith was (almost) right.* (Lecture delivered by Armin Schwartzman, due to illness).
- 60. October 2013. IMA Tutorial: Introduction to Probability and Statistics for Topologists, Minneapolis. Probability and Stochastic Processes for Persistent Homologists.
- 61. October 2013. IMA Workshop on Topological Data Analysis, Minneapolis. TDA and the Euler Characteristic Curve.
- 62. November 2014. Workshop on Discrete, Computational and Algebraic Topology, Copenhagen. *Pondering Persistence and Extolling Euler*.
- 63. April, 2015. Annual de Rahm Lecture, EPFL, Lausanne, Switzerland. *Phase Transitions* and Random Topology.
- 64. June 2015. Conference on Geometry and Data Analysis, Chicago. *Topological Phase Transitions*. (Cancelled due to illness)
- 65. June 2015. Dynamics, Topology and Computations, (DyToComp-2015) Bedlewo, Poland. *Topological Phase Transitions*. (Cancelled due to illness)
- 66. August 2015. Stochastic Geometry Workshop, Poitiers, France. Topological Phase Transitions
- 67. September 2015. Heilbronn Annual Conference, Bristol, UK. Topological Phase Transitions.
- 68. March 2016. British Mathematics Colloquium, Bristol, England. (Plenary) The Gaussian kinematic formula.
- 69. May 2016. Perspectives on Integral Geometry, Athens, Georgia. The Gaussian Kinematic Formula: Its Theory and Some of its Applications.
- 70. July 2016. Algebraic Topology: Computation, Methods, and Science (ATMCS), Turin, Italy. *ATMCS and PROBABILITY: An eclectic collection of problems* (Delivered by video due to medical issues which prevented physical travel.)

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- 72. August 2017. Applied Algebraic Topology, Sapporo, Japan. Applied Topology from the point of view of Probability.
- 73. October 2018. Analytics, Inference and Computation in Cosmology: Methods for Statistical Inference. Paris, France. *Gaussian geometry and topology for cosmology.*

SCIENTIFIC PUBLICATIONS

(a) Books

- 1. R.J. Adler, The Geometry of Random Fields (1981), Wiley, London, xi + 275.
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- 8. R.J. Adler, K. Worsley and J. Taylor, *Applications of Random Fields and Geometry: Foundations and Case Studies.* 250 pages are up on my website. Maybe more will be there sometime, but it is unlikely that this book will ever be finished, primarily due to the untimely parting of my good friend Keith Worsley, whose appreciation of, and contributions to, the applications of random field theory were to be a significant part of the book.

(b) Papers in journals (Published)

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(c) Papers in journals (Submitted)

96. E. Onaran, O. Bobrowski, and R.J. Adler, Functional central limit theorems for local functionals of dynamic point processes, https://arxiv.org/pdf/2310.17775.pdf (31 pages).

(d) Nice, but never journal published, paper

97. R.J. Adler, K. Bartz, S. Kou, and A. Monod, Estimating thresholding levels for random fields via Euler characteristics. https://arxiv.org/abs/1704.08562

(e) Articles in other peer reviewed outlets

- 98. R.J. Adler and M. Lewin, An evolution equation for the intersection local times of super processes, *Stochastic Analysis*, eds. M.T. Barlow and N.H. Bingham, *London Math. Soc. Lecture Notes*, 167, Cambridge University Press, 1–22, 1991.
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