Prof Dr Ralf Metzler

Chair for Theoretical Physics, University of Potsdam
Alexander von Humboldt Polish Honorary Research Scholar
Associate, Higgs Centre for Theoretical Physics, University of Edinburgh

Potsdam-Golm, 8th April 2020

Address: Institute for Physics & Astronomy, University of Potsdam
Karl Liebknecht Straße 24/25, 14476 Potsdam-Golm, Germany
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University Education:

1996	Doctorate (Dr rer nat, summa cum laude, University of Ulm, Germany)
1994	Diploma degree (MSc equivalent, magna cum laude)
1989 - 1994	Study of Physics, University of Ulm

Selected Positions:

2011 -	Chair professor in Theoretical Physics, University of Potsdam
2010 - 2015	Finland Distinguished Professor, Tampere University of Technology
2007 - 2011	Professor (Extraordinarius) in Complex Bio Materials, Technical University of Munich
2006 - 2007	Associate Professor and Canada Research Chair in Biological Physics, Physics Department, University of Ottawa
2002 - 2006	Assistant Professor, Nordic Institute for Theoretical Physics (NORDITA), Copenhagen
2000 - 2002	Postdoctoral Fellow, Massachusetts Institute of Technology (MIT)
2000	Visiting Scientist, University of Illinois, Urbana-Champaign
1998 - 2000	Postdoctoral Fellow, Tel Aviv University

2020 -	Specialty Chief Editor, Frontiers in Physics - Biophysics
2019 -	Interdisciplinary Research Committee member, Novo Nordisk Foundation
2019 -	Editorial Board Member, Entropy
2017 - 2019	Editor, Scientific Reports
2015 -	Editor, Fractional Calculus and Applied Analysis
2013 - 2018	Editor, Physical Review E
2010 -	Editorial Board Member (from 2015 Section Editor), Journal of Physics A
2008 -	Associate editor, Journal of Biological Physics

Research key words:

Stochastic processes, nonequilibrium statistical physics, search processes, soft and biological matter, mathematical modelling, data science, machine learning, Bayesian analysis

Awards:

Feodor Lynen Fellow, Humboldt Foundation | Amos de Shalit Fellow, Minerva Foundation | Emmy Noether Fellow, Deutsche Forschungsgemeinschaft | Canada Research Chair in Biological Physics | Finland Distinguished Professorship | 2017 SigmaPhi Prize | Alexander von Humboldt Polish Honorary Research Scholarship | Associate, Higgs Centre for Theoretical Physics, University of Edinburgh

Students:

17 Postdocs | 31 Graduate Students

Outreach:

150+ invited talks at international conferences | 150+ invited seminars at universities and institutes | Organisation of 35 conferences & workshops | Guest editorships

Publications (ORCID0000-0002-6013-7020):

290+ journal articles, 20,800+ citations (Web of Science, 2,000+ p.a. since 2017)
H-index 66 (Web of Science), 78 (Google Scholar).

1 PERSONAL DATA

1.1 Date of birth and marital status:

Date of birth: 13th October 1968 (at Neuenbürg/Württ.)
Marital status: Married with Osnat Younes-Metzler, PhD
Children: Inbal Iris (2003), Maya Fiona (2008), Ronnie Ian (2008)

1.2 Office address:

Institute for Physics & Astronomy
University of Potsdam
Karl-Liebknecht-Straße 24/25
14476 Potsdam-Golm, Germany
Tel: +49 331 977 5985 (secretariat, Mrs Katrin Kania)
E-mail: rmetzler@uni-potsdam.de
URL: http://www.agnld.uni-potsdam.de/∼metz/

1.3 Private address:

Kantstraße 98A
14513 Teltow, Germany
Tel.: +49 3328 338 1579 (home)
Tel.: +49 151 1495 7544 (mobile)

1.4 Pre-university education:

1975 – 79 Goßweilerschule Calmbach (primary school)

1979 – 85 Enztal-Gymnasium Bad Wildbad (secondary school)

1985 – 88 Gymnasium Neuenbürg/Württ. (secondary school)

May 1988 Abitur (general qualification for university entrance, comp. A-levels/SCE Highers)

1988 – 89 Industrial placements, metal processing, Schneeberger AG, Höfen/Enz; microwave moisture and nuclear radiation measurement, Berthold Laboratories, Bad Wildbad (12 months)

1.5 University education:

1989 – 94 Study of physics at the University of Ulm

1991 Vordiplom (intermediate exam, magna cum laude)

1993 – 94 Diploma thesis at the Dept of Mathematical Physics
Supervisor: Prof. Theo F. Nonnenmacher
Title: Model equation for anomalous diffusion

May 1994 Diploma degree (MSc equivalent, magna cum laude)

1994 – 96 Doctoral thesis at the Dept of Mathematical Physics, University of Ulm
Supervisor: Prof. Theo F. Nonnenmacher
Title: Modelling of special dynamical problems in complex materials

Dec 1996 Doctorate (Dr. rer. nat., summa cum laude)

1.6 Post-doctorate & professional career:

01/97 – 04/97 Research fellow, Mathematical Physics Dept, University of Ulm

05/97 – 09/97 Research officer, international studies programme launch, Fluid Mechanics Dept., University of Erlangen-Nürnberg

10/97 – 12/97 Research fellow, Mathematical Physics Dept, University of Ulm

01/98 – 03/00 Post-doctoral fellow, School of Chemistry, Tel Aviv University, with Prof. Joseph Klafter

04/00 – 08/00 Visiting scientist, School of Chemical Sciences, University of Illinois, Urbana-Champaign, with Prof. Peter Wolynes

08/00 – 03/02 Post-doctoral fellow, Department of Physics, Massachusetts Institute of Technology, with Prof. Mehran Kardar

04/02 – 06/06 Assistant professor, NORDITA (Nordic Institute for Theoretical Physics), Copenhagen (2×3 years fixed term, non-tenure track, extended to the second period in 2005)

07/2006 – 04/07 Associate professor and Canada Research Chair in Biological Physics, Physics Department, University of Ottawa

05/07 – 09/11 Professor (Extraordinarius) in Complex Bio Materials, Technical University of Munich

12/10 – 09/15 Finland Distinguished Professor, Tampere University of Technology

10/11 – present Chair professor for Theoretical Physics, Institute for Physics & Astronomy, University of Potsdam

10/16 – 09/18 Director, Institute for Physics & Astronomy, University of Potsdam

10/18 – 09/20 Deputy director, Institute for Physics & Astronomy, University of Potsdam

1.7 Awards and Grants:

06/94 – 04/97 Sonderforschungsbereich (SFB) 239 (project C8/B10), Deutsche Forschungsgemeinschaft (DFG); PI: Prof. T.F. Nonnenmacher (I contributed significantly to project proposal and reports, and attended most meetings per pro)

01/98 – 10/98 **Feodor Lynen fellowship**, Alexander von Humboldt Stiftung

11/98 – 03/00 **Amos de Shalit named fellowship**, Minerva German-Israeli binational foundation

04/00 – 03/02 **Emmy Noether fellowship**, Deutsche Forschungsgemeinschaft

07/01 – 06/03 Member, INTAS project 00-0847, European Science Foundation

2004 - 2006 NORDITA network grant (PI), Nordic Network on Statistical Physics, Soft Matter and Biological Physics, DKK 180,000

07/06 Startup grant, University of Ottawa, CAD 60,000

07/06 – 06/11 NSERC (Natural Sciences and Engineering Research Council of Canada) Discovery Grant (PI), approx CAD 220,000

07/06 – 06/11 **Canada Research Chair** (Tier II) in Biological Physics (PI), Government of Canada, initially CAD 725,000

05/07 Startup grant, Technical University of Munich, €100,000 plus €100,000 from the Physics Dept

08/07 Conference grant, US$ 45,000 from the Israel Science Foundation (together with Drs. Eli Barkai, Bar Ilan University, and Iddo Eliazar, Holon Institute of Technology)

11/07 Conference grant, US$ 15,000, Office of Naval Research (together with Drs. Eli Barkai, Bar Ilan University, and Iddo Eliazar, Holon Institute of Technology)

11/07 Workshop grant, "Optimal target search, from biological cells to the flight of the albatross", NORDITA, Stockholm, together with John Hertz, NORDITA, SEK 98,000

04/08 Research grant on "Optimization of passive search processes with application to particle transport and gene regulation in biological cells and diluted solution" (PI), Deutsche Forschungsgemeinschaft, approx €120,000

01/08 PhD scholarship, CompInt (Materials Science of Complex Interfaces) International Graduate School (TUM), incumbent Vincent Tejedor (1 year visiting PhD student), approx €50,000

06/08 PhD scholarship, IDK-NBT (Elite network of the state of Bavaria) through the Center for NanoScience (LMU), incumbent Leila Esmaeili Sereshki, approx €150,000

01/09 American Physical Society Outstanding Referee (340 out of 42,000 APS referees selected in 2009)

06/09 EPL Distinguished Referee 2008, free 3 years membership of the European Physical Society

07/10 **Finland Distinguished Professor** (FiDiPro), Tampere University of Technology. 5 years' period, €912,100 (Academy of Finland) plus €400,000 (TUT)

01/11 EPL Distinguished Referee 2010, free 3 years membership of the European Physical Society

01/11 PhD scholarship, CompInt (Materials Science of Complex Interfaces) International Graduate School (TUM), incumbent Johannes Schulz, approx €150,000

01/11 IRSES Grant DCP-PhysBio, approx. €25,000 annually over 5 years

2012- Affiliated researcher, Minerva Center for Movement Ecology, The Hebrew University of Jerusalem, Israel

08/12 Research grant, German Federal Ministry of Education and Research (PI), €433,000

02/13 EPL Distinguished Referee 2012, free 3 years membership of the European Physical Society

06/13 Workshop Grant, US$ 9,900, Office of Naval Research Global, "Search and Exploration III", Cargése, Corsica, together with Dr. Gleb Oshanin

07/13 **OCCAM Visiting Fellow**, Mathematical Institute, University of Oxford, Oxford, UK (1 month)

12/14 European Physical Journal Distinguished Referee

04/15 Workshop Grant (PI), US$ 10,000, Office of Naval Research Global, "Anomalous diffusion", Bad Wildbad, Germany

11/15 Workshop Grant (PI), €9,000, U Potsdam, TAU-HUJI-BIU-Potsdam "Workshop on Stochasticity of Cells and Genes", Tel Aviv University

12/15 Workshop Grant (PI), €3,500, U Potsdam, U Potsdam-Wrocław University of Technology "Workshop on Anomalous diffusion", Wrocław

01/16 EPL Distinguished Referee 2015, free 3 years membership of the European Physical Society

06/16 Research grant LE STUDIUM, Loire Valley Institute for Advanced Studies, France, co-PI. Leading PI: Prof Gerald Kneller, Université de Orléans

06/16 Research grant on "Random search processes, Lévy flights, and random walks on complex networks" (PI), Deutsche Forschungsgemeinschaft, code ME 1535/6-1, €243,300

07/16 KoUP project for University of Potsdam-Tel Aviv University collaboration (two mutual visits and a winter school, PI), €14,800 (internal competition)

11/16 Workshop Grant (PI), US$ 10,000, Office of Naval Research Global, "Venice meeting on fluctuations in small complex systems III", Venice, Italy

07/17 **SigmaPhi Prize 2017** for outstanding achievements in Statistical Physics

10/17 Research grant on "Mathematical and physical modelling of single particle trajectories—Big Data approach" (PI), Deutsche Forschungsgemeinschaft, code ME 1535/7-1, €253,400

03/18 **Alexander von Humboldt Polish Honorary Research Scholarship**, Foundation for Polish Science (Fundacja na rzecz Nauki Polskiej) for the period 2018-2021 on "Generalised stochastic models and data inference". These "Scholarships are awarded to outstanding German scholars with the highest qualifications and a significant contribution to global research"

07/18 Invited EPS lecture speaker grant, EPS Statistical and Nonlinear Physics Division, Erice Conference on New Trends in Nonequilibrium Statistical Mechanics: Classical and Quantum Systems, Ettore Majorana Center, Erice, Sicily, Italy

03/19 Workshop Grant (co-PI), €10,000, Tel Aviv University and University of Potsdam joint research workshop

04/19 Workshop grant, €25,500, Sino-German Centre for Research Promotion, GZ 1557, Anomalous and non-ergodic diffusion: modelling, theory, application, and simulation, June 2019, Lanzhou, China

12/19 Co-speaker, CRC-TRR 299 initiative (core partners: Humboldt University Berlin and University of Potsdam). Volume approx €10,000,000. The project was ranked "very good-excellent" by the on-site review panel but ultimately rejected by the central funding committee of Deutsche Forschungsgemeinschaft

12/19 Computing time, HLRN project bbp00034, Sequence dependent sliding of a methyl cytosine binding protein along DNA; a molecular dynamics study. 224 kNPL (≙€58,240)

2020- Higgs Associate, Higgs Centre for Theoretical Physics, University of Edinburgh, Scotland

1.8 Postdocs and graduate student supervision:

1995-1996 Advisor to graduate students Stefanie Reichert and Norbert Südland, University of Ulm

2002-2004 Dr. Audun Bakk (PhD, Norwegian University of Science and Technology, Trondheim, Norway), NORDITA postdoctoral fellow. Since 2004 research scientist at SINTEF Petroleumsforskning, Trondheim

2003-2006 Dr. Tobias Ambjörnsson (PhD, Chalmers University of Technology, Göteborg, Sweden), NORDITA postdoctoral fellow. From September 2006 postdoctoral fellow, Massachusetts Institute of Technology (MIT), Cambridge, MA. From 2009 Assistant professor, since 2015 **Associate Professor**, Department of Theoretical Physics, University of Lund, Sweden

2004-2005 Dr. Suman Kumar Banik (PhD, Jadavpur University, Calcutta, India), NORDITA international postdoc. From 2005 postdoctoral fellow at Virginia Tech, Blacksburg, VI. From 2008 Assistant Professor, since 2014 **Associate Professor**, Bose Institute, Kolkata, India

2004 Taofiq Paraiso (École Polytechnique Fédérale de Lausanne, 2 months), NORDITA guest programme

2005-2007 Dr. Michael Lomholt (PhD, University of Southern Denmark, Odense), Feb 2005-Feb 2006 Villum Kann Rasmussen fellow at NORDITA. March-April 2006 visiting scientist, NORDITA. May-July 2006 visiting scientist, Chemistry Department, Tel Aviv University with collaborators Profs. Joseph Klafter and Michael Urbakh. From August 2006 postdoctoral fellow, Physics Department, University of Ottawa, paid through the Canada Research Chair in Biological Physics. From Jun 2007 postdoctoral fellow, Technical University of Munich. Since Jan 2008 **Associate professor** (lektor), Department of Chemistry and Physics, University of Southern Denmark (Syddansk Universitet), Odense

2005 Dr. Ingve Simonsen (Norwegian University of Science and Technology, Trondheim), NORDITA guest programme (2 months). Since Jan 2008 Associate professor, Department of Physics, Norwegian University of Science and Technology (Norges Teknisk-Naturvitenskapelige Universitet NTNU), Trondheim

2006-2008 Irwin Zaid, Honour's student, Carleton-uOttawa honours programme. From Jan 2008 MSc student, Technical University of Munich. 2008-2013 PhD student, University of Oxford, with Prof. Julia Yeomans. 2013 **Junior Research Fellow**, Christ Church College, Oxford

2007-2010 Nazanin Samadifard, MSc student, University of Ottawa

2008 Prof Dr Aleksei Chechkin (permanently at Institute for Theoretical Physics NSC KIPT, Kharkov, Ukraine), Visiting scientist, Physics Dept, TU Munich

2008-2009 Radina Hadgiivanova, PhD student (co-supervisor; supervisor: Prof. Haim Diamant)

2008-2010 Dr Kaifu Luo (PhD, Fudan University, Shanghai), postdoc. From April 2010 **Full Professor**, Department of Polymer Science and Engineering, University of Science and Technology of China, and Candidate of the Hundred Talents Program of the Chinese Academy. Deceased.

2008-2012 Leila Esmaeili Sereshki (MSc, Alzahra University, Tehran), CeNS/IDK international PhD studies fellow

2008-2014 Dr Jae-Hyung Jeon (PhD, Pohang University, South Korea), postdoc, TU Munich. From Jun 2011 postdoc, in the FiDiPro project at Tampere University of Technology. From 2014 Assistant professor, Korean Institute for Advanced Study. From 2016 **Assistant professor** with tenure-track, Pohang University of Science & Technology (POSTECH)

2008-09 Vincent Tejedor (MSc, École Normale Supérieure, Paris), PhD student, École des Mines. Co-tutelle PhD student for one year, dual PhD from TUM and École des Mines, Paris. Co-founder and partner, Expliseat SAS

2008-2009 Martin Kühn, external diploma student, TU Munich/BrainLAB

2009-2010 Michaela Schad, diploma student, TU Munich. From 2011, PhD student, Department of Theoretical Physics, University of Lund, Sweden

2010 Rouhollah Abdolvahab (MSc, Sharif University, Tehran, Iran), PhD student, Sharif University. Visiting PhD student for 1/2 year

2010-2014 Johannes Schulz (MSc, LMU Munich), PhD student. From 2014 postdoc, Bar-Ilan University, Ramat Gan, Israel

2011-2014 Dr Vladimir Palyulin (PhD, Moscow State University, Russia), Postdoc with own DFG grant, 3 years. From 2014 senior postdoc, TU Munich. From 2016 senior postdoc, University of Cambridge, UK. From 2019 **Assistant professor**, Skolkovo Institute of Science and Technology (Skoltech), Moscow, Russia

2011-2015 Dr Otto Pulkkinen (PhD, University of Jyväskyä, Finland), Postdoc in the FiDiPro project at Tampere University of Technology

2011-2015 Dr Hector Martinez-Seara (PhD, University of Barcelona), Joint postdoc in the FiDiPro project at Tampere University of Technology

2011-2014 Maximilian Bauer (MSc, U Freiburg), PhD student

2011-2012 Jochen Kursawe, diploma student, TU Munich. From 2012 PhD student, University of Oxford

2011 Mahsa Vahabi (MSc, Shahid Beheshti University, Tehran, Iran), PhD student, Shahid Beheshti University. Visiting PhD student for 1/2 year. From 2012 postdoc, École Normale, Paris. From 2013 postdoc, Vrije Universiteit Amsterdam

2012 Prof Dr Aleksei Chechkin (permanently at Institute for Theoretical Physics NSC KIPT, Kharkov, Ukraine), Visiting scientist, Physics Dept, U Potsdam (8 months)

2012- Dr Andrey Cherstvy (PhD, U Düsseldorf), Postdoc with own DFG grant (3 years, 1/2 year on BMBF project). Since 2016 senior scientist, Physics Department, U Potsdam

2012-2013 Mohsen Ghaseminezhadhaghigh (MSc, Sharif University, Tehran, Iran), PhD student, Sharif University. Visiting PhD student for 1/2 year, Physics Dept, U Potsdam

2012-2017 Dr Aljaz Godec (PhD, University of Ljubljana, Slovenia), Postdoc, Physics Dept, U Potsdam. From 02/2014 Alexander von Humboldt Fellow, Physics Dept, U Potsdam. From 04/2017 **Emmy Noether Fellow**, DFG, with own group at the Max Planck Institute for Biophysical Chemistry, Göttingen, Germany. 2017 recipient of the **Karl-Scheel Prize** of the Berlin Physical Society.

2012- Maria Schwarzl, MSc student, now PhD student, Physics Dept, U Potsdam

2013-2016 Henning Krüsemann, PhD student, Physics Dept, U Potsdam

2013-2015 Dr Igor Goychuk, Lecturer with own DFG grant, 3 years

2013-2015 Dr Jaeoh Shin (PhD, Pohang University, South Korea), Postdoc, Physics Dept, U Potsdam. From 2015 postdoc, Max Planck Institute for the Physics of Complex Systems, Dresden, Germany

2013-2014 Dr Surya Ghosh (PhD, IIT Bombay, India), Postdoc, Physics Dept, U Potsdam. From 2014 postdoc, École Polytechnique, Paris, since 2016 postdoc, CNRS, Université de Grenoble Alpes. Since 2018 **Assistant professor**, Sri Ramaswamy Memorial Institute of Science and Technology, Chennai, India

2014 Richard Schwarzl, diploma student, Physics Dept, U Potsdam. From 2014 PhD student, FU Berlin

2014 Hadiseh Safdari (MSc, Shahid Beheshti University, Tehran, Iran), PhD student, Shahid Beheshti University. Visiting PhD student for 1/2 year

2015 Prof Dr Aleksei Chechkin (permanently at Institute for Theoretical Physics NSC KIPT, Kharkov, Ukraine). Visiting scientist, Physics Dept, U Potsdam (5 months)

2015- Yousof Mardoukhi (MSc, Tampere University of Technology), PhD student, Physics Dept, U Potsdam

2015 Erez Aghion (MSc, Bar Ilan University, Ramat Gan, Israel), PhD student, Bar Ilan University. Visiting PhD student for 3 months

2015-2016 Carl Hermann, MSc student, Physics & Physiology Dept, U Potsdam

2015-2016 Lin Liu, PhD student, University of Science and Technology of China, Hefei. Visiting PhD student for 1 year.

2016 Prof Sidney Jurado de Carvalho, São Paolo State University, Brazil. Visiting scientist, Physics Dept, U Potsdam (6 months)

2016 Dr Hadiseh Safdari (researcher, Shahid Beheshti University, Tehran, Iran). Visiting scientist, Physics Dept, U Potsdam (3 months)

2016 Dr Otto Pulkkinen, Helsinki. Visiting scientist, Physics Dept, U Potsdam (4 months)

2016-2020 Samudrajit Thapa, PhD student, Physics Dept, U Potsdam (DAAD)

2016 Prof Şahin Uyaver, DAAD fellow (3 months), Turkish-German University, Istanbul, Turkey

2016-2017 Daniel Molina, Basque Center for Applied Mathematics, Bilbao, Spain. Visiting PhD student for 1/2 year

2016-2018 Jakub Ślęzak, PhD student, Wrocław University of Technology, Wrocław, Poland. PhD co-supervisor. From 2018 postdoc, Bar Ilan University

2016-2020 Prof Dr Aleksei Chechkin (permanently at Institute for Theoretical Physics NSC KIPT, Kharkov, Ukraine). Visiting scientist, Physics Dept, U Potsdam

2016-2019 Dr Igor Goychuk, Lecturer with own DFG grant, 3 years

2017-2018 Oliver Kindler, MSc student, Physics Dept, U Potsdam

2017-2018 Marcus Dahlenburg, MSc student, Physics Dept, U Potsdam

2017-2020 Vittoria Sposini (MSc, University of Bologna), PhD student, Physics Dept, U Potsdam. Co-tutelle student with BCAM Bilbao

2017- Tobias Guggenberger, MSc student, Physics Dept, Free University Berlin. From 2018 PhD student, Physics Dept, U Potsdam

2017-2019 Ru Hou, PhD student, Lanzhou University, Lanzhou, China. Visiting PhD student for 1 1/2 years

2018-2019 Fereydoon Taheri, PhD student, U Heidelberg, co-supervision after the main supervisor Prof Jörg Langowski had a fatal accident

2018-2019 Stefan Ritschel, MSc student, Physics Dept, U Potsdam

2018-2020 Wei Wang, PhD student, Nanjing University of Aeronautics & Astronautics, Nanjing, China. Visiting PhD student for 1 1/2 years

2018-2019 Eial Teomy, PhD, Tel Aviv University. Potsdam-TAU postdoctoral fellow

2020-2021 Dr Denis Grebenkov, École Polytechnique, Palaiseau, France. Alexander von Humboldt Bessel Prize winner

2020-2021 Dr Trifce Sandev, Macedonian Academy of Sciences. Alexander von Humboldt experienced research fellow

2020-2021 Dr Michael Assaf, Hebrew University of Jerusalem. Alexander von Humboldt experienced research fellow

2020-2022 Helena Stage, PhD, University of Manchester, Alexander von Humboldt postdoctoral fellow

1.9 Conference organisation:

Aug 1997 Co-organiser, The 1997 İzmir Summer Academy, Otel Altın Yunus, Çeşme, Ege, Turkey

May 2003 Main organiser, INTAS03 Meeting and Mini-Symposium on Anomalous Dynamical Processes, NORDITA, Copenhagen

Aug 2003 Co-organiser, Hairy Interfaces and Stringy Molecules, An International Summer School and Workshop on Colloids and Biophysics, University of Southern Denmark, Odense

Aug 2004 Main organiser, Workshop on Statistical Mechanics, Soft Matter and Biological Physics, NORDITA, Copenhagen.

Dec 2004 Co-organiser, Nordic Workshop on Networks, NORDITA, Copenhagen

May 2005 Member of the scientific committee, Nordic workshop on Computational Problems in Physics, Helsinki

Jun 2005 Co-organiser, Nordic Network Meeting on Statistical Mechanics, Soft Matter and Biological Physics, Tromsø, Norway

Aug 2005 Main organiser, Physics of Life: From Single Molecules to Networks. Workshop and Summer School in Biological Physics, Krogerup Højskole, Humlebæk, Denmark

May 2006 Main organiser, NORDITA Conference on Soft Matter, Statistical Mechanics, and Biological Physics, Copenhagen, Denmark

May 2006 Co-organiser, Challenges in Physical Chemistry: Single Molecules, Complex Structures, and Anomalous Statistics, in honour of Yossi Klafter's 60th birthday, Tel Aviv, Israel

Mar 2008 Co-organiser, Modeling anomalous diffusion and relaxation: from single molecules to the flight of the albatross, The Institute for Advanced Studies, The Hebrew University of Jerusalem, Israel

Aug 2008 Main organiser, NORDITA Workshop on Movement and Search: From biological cells to spider monkeys, NORDITA, Alba Nova, Stockholm, Sweden

Mar 2009 Member of the steering group, NORDITA programme on Theoretical Assessment of the Biological Effects of Nano Materials, NORDITA, Alba Nova, Stockholm, Sweden

Sep 2009 Co-organiser, Physics goes DNA: from base-pairs to chromatin, Lorentz Center, Universiteit Leiden, Holland

Dec 2009 Co-organiser, Symposium on Multiscale Dynamics in Confining Systems, Materials Research Society Fall Meeting, Hynes Convention Center, Boston, MA

Apr 2011 Co-organiser, Workshop on Exploration and Search, Institut d'Études Scientifiques de Cargèse, Corsica, France

May 2011 Co-organiser, NORDITA Workshop on Statistical mechanics and computation of DNA origami, Hotel Arkipelag, Mariehamn, Finland

May 2012 Co-organiser, Sino-German Workshop on Fractional Dynamics: Recent Advances, IFAC Workshop on Fractional Dynamics, The 5th IFAC Symposium on Fractional Differentiation and its Applications, Hohai, University, Nanjing, China

Jun 2012 Invited session organiser and speaker, IWAP 2012 – International Workshop on Appliied Probability, Inbal Hotel, Jerusalem, Israel

Oct 2012 Co-organiser, Venice meeting on fluctuations in small complex systems, Istituto Veneto di Science, Lettere e Arti, Palazzo Franchetti, Venezia, Italy

Jun 2013 Co-organiser, Workshop on Exploration and Search, Institut d'Études Scientifiques de Cargèse, Corsica, France

Oct 2013 Co-organiser, Dynamics in Crowded Systems, An International Workshop, University of Potsdam, Potsdam, Germany

Jul 2014 Programme committee member, International Conference on Fractional Differentiation and its Applications, Cattanea, Italy.

Aug 2014 Mini-colloquium organiser, Statistical challenges in single-particle tracking, Condensed Matter in Paris 2014 Conference, Université Paris Descartes

Oct 2014 Co-organiser, Venice meeting on fluctuations in small complex systems II, Istituto Veneto di Science, Lettere e Arti, Palazzo Franchetti, Venezia, Italy

Sep 2015 Co-organiser, Anomalous dynamics in biological systems, Korea Institute for Advanced Study (KIAS), Seoul, South Korea

Oct 2015 Main organiser, Black Forest meeting on Anomalous diffusion: wild and bad?, König Karls Bad, Bad Wildbad, Germany

Nov 2015 Co-organiser, Workshop on Stochasticity of Cells and Genes, Tel Aviv University, Israel

Dec 15 Co-organiser, Workshop on Anomalous diffusion, Wrocław University of Technology

Oct 2016 Co-organiser, Venice meeting on fluctuations in small complex systems III, Istituto Veneto di Science, Lettere e Arti, Palazzo Franchetti, Venezia, Italy

Nov 2016 Co-organiser, Workshop on stochasticity and fluctuations in small systems, POSCO International Centre, Pohang, Korea

Dec 2016 Main organiser, Wrocław-Potsdam meeting on dynamics, KoUP programme, Institute of Physics & Astronomy, University of Potsdam, Golm, Germany

Mar 2017 Co-organiser, Stochastic dynamics: models and applications, International Centre for Advanced Studies, Buenos Aires, Argentina

Apr 2017 Co-organiser, Spring school in Dynamics in Complex and Biological Systems, KoUP programme, Tel Aviv University, Israel

Aug 2017 Co-organiser, Anomalous Dynamics in Complex Systems: From Chaos on Nanoscales to Search in Biology, Sokos Hotel Ilves, Tampere, Finland

Sep 2017 Programme committee member, Conference on Complex Systems 2017 (CCS'17), Cancun, Mexico

Feb 2018 Co-organiser, Symposium in honor of Igor Sokolov, Bernstein Center for Computational Neuroscience Berlin, Germany

Sep 2018 Organiser, Fractional calculus and applications, in honour of Profs Rudolf Gorenflo and Theo F Nonnenmacher, University of Potsdam, Germany

Oct 2018 Co-organiser, Venice meeting on fluctuations in small complex systems IV, Istituto Veneto di Science, Lettere e Arti, Palazzo Franchetti, Venezia, Italy

Apr 2019 Co-organiser, International workshop on Dynamics, Nonlinearity and Stochasticity. Northwestern Polytechnical University, Xi'an, China

Jun 2019 Co-organiser, Sino-German symposium on Anomalous and non-ergodic diffusion. JJ Sun Hotel, Lanzhou, China

Sep 2019 Main organiser, 2nd Black Forest meeting on Anomalous diffusion: wild and bad?, König Karls Bad, Bad Wildbad, Germany

Oct 2020 Co-organiser, Venice meeting on fluctuations in small complex systems IV, Istituto Veneto di Science, Lettere e Arti, Palazzo Franchetti, Venezia, Italy

1.10 Editorial assignment:

2002 Guest editor, Chemical Physics, Vol. 284 *Strange Kinetics*, with R. Hilfer, A. Blumen, and J. Klafter

2004-2010 Editorial board member, Journal of Computational and Theoretical Nanoscience (www.aspbs.com/ctn/)

2008-2009 Advisory Panel Member, Journal of Physics A, IOP Publishing, Bristol, UK

2008- Associate Editor, Journal of Biological Physics

2008 Guest editor, Physical Biology, Special focurs on *Polymer physics of the cell*, with J.-F. Joanny, F. Ritort, and D. A. Weitz

2010- Editorial Board Member, Journal of Physics A, IOP Publishing, Bristol, UK

2010- Review Editor, Frontiers in Fractal Physiology

2010 Editor, *Fractal Dynamics in Physics*, World Scientific Publishers, Singapore, with J. Klafter and S.-C. Lim

2012 Editor, *First passage problems: advances and applications*, World Scientific Publishers, Singapore, with G. Oshanin and S. Redner

2013-2018 Editor, Physical Review E (Biological Physics, Stochastic Processes)

2015- Editor, Fractional Calculus and Applied Analysis

2015- Section Editor for Biological Modelling, Journal of Physics A, IOP Publishing, Bristol, UK

2016 Guest Editor, Special issue on Marian Smoluchowski's 1916 paper-a century of inspiration, Journal of Physics A, together with Katja Lindenberg and Ewa Gudowska-Nowak

2017-2019 Editor, Scientific Reports

2019- Editor Board Member, Entropy

2019 Editor, *Chemical kinetics beyond the textbook*, World Scientific Publishers, Singapore, with K. Lindenberg and G. Oshanin

2019 Guest editor, Research Topic on *Anomalous Transport: Applications, Mathematical Perspectives, and Big Data*, with C. Mejía-Monasterio and J. Vollmer

2020- Specialty Chief Editor, Frontiers in Physics - Biophysics

1.11 Committee and panel assignments:

Apr 2004 Review committee member, group grant 'Physics of Biological Systems', Helsinki Institute of Physics, Otaniemi, Finland

2004-2006 Main organiser, Nordic Network on Statistical Mechanics, Soft Matter and Biological Physics

Sep 2004 Invited round table panel member on future funding goals of the US Army Research Office, 'Expert Workshop on Physical and Mathematical Aspects of Multiscale Modeling', Bled, Slovenia

Feb 2005 Selection committee, expert panel member in physics, Academy of Finland, Helsinki

Aug 2005 Panel member, Discussion meeting 'In Search of a Theory of Complexity', University of North Texas, Denton, TX, funded by the US Army Research Office

2010-2012 NORDITA Programme committee member, NORDITA, Stockholm, Sweden

2013-2016 Research Council Member, Hugo Steinhaus Center, Wroclaw, Poland

2014- Faculty Council Member, Faculty of Sciences, University of Potsdam

2015- Internationalisation representative, Faculty of Sciences, University of Potsdam

1.12 Teaching:

1991-94 Teaching assistant, physics lab courses and assignment groups in experimental and theoretical physics, U Ulm

1995-97 Teaching associate, mathematical methods in physics, U Ulm

2003 Graduate course (kandidatkurs) Physics in Molecular Biology, Niels Bohr Institute, U Copenhagen, with Kim Sneppen

2003-04 Graduate course (kandidatkurs) Single Molecule Biophysics, Niels Bohr Institute, U Copenhagen, with Lene Oddershede and Kirstine Berg-Sørensen

2004 Graduate course (kandidatkurs) Topics in Physics of Complex Systems, Niels Bohr Institute, U Copenhagen, with Mogens Høgh Jensen and Kim Sneppen

2005-06 Graduate course (kandidatkurs) Single Molecule Biophysics, Niels Bohr Institute, U Copenhagen, with Lene Oddershede

2007-08 Stochastic Processes in Complex Systems, TU Munich

2008 Thermodynamics and Statistical Mechanics, TU Munich

2008-09 Stochastic Processes in Biological and other Complex Systems, TU Munich

2009 Topics in Polymer Theory, TU Munich

2009-10 Topics in Polymer Theory II, TU Munich

2010 Classical Mechanics, TU Munich

2010-11 Stochastic Processes in Biological and other Complex Systems, TU Munich

2010-11 Current developments in single molecule physics, TU Munich

2011 Classical Mechanics, TU Munich

2011 Lecture series on Single Trajectory Analysis, TU Munich

2012 Fluctuations in Small Systems, U Potsdam

2012-13 Thermodynamics and Statistical Mechanics, U Potsdam

2013 Fluctuations in Small Systems, U Potsdam

2013-14 Thermodynamics and Statistical Mechanics, U Potsdam

2014 Theoretical biological physics, U Potsdam

2014-15 Stochastic processes, U Potsdam

2015 Classical Mechanics, U Potsdam

2015-16 Thermodynamics and Statistical Mechanics, U Potsdam

2016 Theoretical biological physics, U Potsdam

2016-17 Sabbatical

2017 Classical Mechanics, U Potsdam

2017-18 Thermodynamics and Statistical Mechanics, U Potsdam

2018 Stochastic processes, U Potsdam

2018-2019 Thermodynamics and Statistical Mechanics, U Potsdam

2019 Theoretical biological physics, U Potsdam

2019-2020 Thermodynamics and Statistical Mechanics, U Potsdam

2020 Non-equilibrium statistical physics

The above list comprises the main courses I have taught. At all times I am running additional open and group seminars. Since 2012 I am also involved in the organisation of the Bio/Complex lecture series at our institute.

1.13 External tutorials:

2003 Compact course on Single Biomolecule Physics, Norwegian Agricultural University, Ås

2007 Lecture series on Statistical Methods in Biological Systems, Troisième Cycle de la Physique en Suisse Romande, École Polytechnique Fédérale, Lausanne

2008 Course lecturer, The 18th Jyväskylä Summer School, Jyväskylän Yliopisto, Finland

2010 Course lecturer, Summer School on Single Molecules Biophysics, University of Leuven, Belgium

2012 Course lecturer, Summer School on DNA dynamics and life strategies, Krogerup Højskole, Humlebæk, Denmark

2013 Lecture series on Anomalous Diffusion, 4th RRI School on Statistical Physics, Raman Research Institute, Bangalore, India

2017 Course lecturer, Summer school on stochastic processes with applications to physics and biology, Acre, Israel

2018 Course lecturer, 2018 Summer School on Soft Matter and Biophysics, Institute of Natural Sciences, Shanghai Jiao Tong University, China

2018 Course lecturer, 2018 Lanzhou Summer School on Mathematics, Mathematics Department, Lanzhou University, China

1.14 Refereeing and examination work:

Referee for peer-reviewed journals: Nature Materials, Nature Physics, Nature Methofs, Nature Comm, Nature Chemistry, Sci Rep, Phys Rev Lett, Europhys Lett, Biophys J, Proc Natl Acad Sci USA, Proc Roy Soc, J Roy Soc Interface, Langmuir, J Amer Chem Soc, PLoS ONE, PLoS Comp Biol, ACS Nano, Phys Rev E, Phys Biol, J Math Biol, J Biol Phys, Physica A, Physica D, J Phys A, J Phys Cond Mat, Phys Lett A, Euro Biophys J, Phys Chem Chem Phys, Euro J Phys B, Euro J Phys E, J Stat Phys, J Stat Mech, Chem Phys, New J Phys, J Phys Chem B, Water Res Res, Macromol, Phys Fluids, ChemPhysChem, Soft Matter, etc

Referee for research agencies: National Science Foundation (USA), French National Research Agency (Agence nationale de la recherche), Israel Science Foundation (ISF), Academy of Finland (Suomen Akatemia), Natural Sciences and Engineering Research Council (NSERC, Canada), Government of Canada (Canada Research Chairs), US-Israel Binational Science Foundation (BSF), Austrian Science Fund (FWF), France-Israel Binational High Council for Scientific and Technological Cooperation, German-Israeli Foundation (GIF), Danish Council for Independent Research/Natural Sciences (Det Frie Forskningsrad/Natur og Univers, FNU), Villumfonden (Denmark), Lundbeckfonden (Denmark), Mercedes Benz Stiftung (Germany), European Research Council (ERC), Studienstiftung (Germany), Fulbright (US), Marsden Fund Council (Government of New Zeeland), BBSRC (UK), Deutsche Forschungsgemeinschaft (DFG, including SFB review), Italian Ministry for University Education and Research (MIUR), Alexander von Humboldt Foundation (AvH), Vlanders Research Foundation (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO), Minerva foundation, National Science Centre Poland, Institut Universitaire de France (IUF), Fondazione Cassa di Risparmio di Padova e Rovigo (CARIPARO), Estonian Research Council (ETAg), Fonds National de Recherche de Luxembourg (FNR), Ministry of Science, Technology & Space, Israel, US Department of Energy, Carl Zeiss-Stiftung, National Research, Development and Innovation Office (NKFIH) Hungary, American Chemical Society Petroleum Research Fund (ACS PRF), USA, European Science Foundation (ESF) College of Expert Reviewers Member, WWFT (Vienna Science and Technology Fund) Austria, FONDECYT/CONICYT Chile, etc

Referee/Committee member in faculty promotion and hiring cases: TU Munich, Aalto University (Helsinki), Massachusetts Institute of Technology (MIT), University of Western Ontario (London, ON), University of Potsdam, Aston University (Birmingham), University of Otago (New Zealand), University of Padova (Italy), École Polytechnique (Paris), Ben Gurion University (Be'er Sheva, Israel), University of Texas (Brownsville, TX), University of Trento (Italy), etc

Opponent/Committee chairman/Committee member in various MSc, PhD, and habiliation defences: TU Munich (30+), University of Ottawa (2), Dalhousie University (1), Syddansk Universitet, Odense (1), Niels Bohr Institutet (1), Université Pierre et Marie Curie, Paris 6 (4), Helsinki University of Technology (2), École Polytechnique Fédérale de Lausanne (1), Katholieke Universiteit Leuven (1), Humboldt University Berlin (1), University of Potsdam (20+), Ss. Cyril and Methodius University, Skopje, Macedonia (1), IIS Bangalore (2); Technical University Berlin (1), Aston University, Birmingham (1), Göteborgs Universitet (1), École Polytechnique (1), etc

1.15 Membership in professional societies: Deutsche Physikalische Gesellschaft, European Physical Society, Biophysical Society

1.16 Languages: English, German, Danish, French (fluent); Hebrew (basic knowledge)

2 LIST OF PUBLICATIONS

ResearcherID: J-9088-2013
ORCID: 0000-0002-6013-7020

A Journal articles:

A.1 R. Metzler, W. G. Glöckle, and T. F. Nonnenmacher, *Fractional model equation for anomalous diffusion*, Physica **211A**, 13 (1994).

A.2 R. Metzler, W. Schick, H.-G. Kilian, and T. F. Nonnenmacher, *Relaxation in filled polymers: A fractional calculus approach*, J. Chem. Phys. **103**, 7180 (1995).

A.3 H. Schiessel, R. Metzler, A. Blumen, and T. F. Nonnenmacher, *Generalized viscoelastic models: Their fractional equations with solutions*, J. Phys. A **28**, 6567 (1995).

A.4 T. F. Nonnenmacher and R. Metzler, *On the Riemann-Liouville fractional calculus and some recent applications*, Fractals **3**, 557 (1995).

A.5 M. O. Vlad, R. Metzler, T. F. Nonnenmacher, and M. C. Mackey, *Universality classes for asymptotic behavior of relaxation processes in systems with dynamical disorder: Dynamical generalizations of stretched exponential*, J. Math. Phys. **37**, 2279 (1996).

A.6 B. J. West, P. Grigolini, R. Metzler and T. F. Nonnenmacher, *Fractional diffusion and Lévy stable processes*, Phys. Rev. E **55**, 99 (1997).

A.7 R. Metzler and T. F. Nonnenmacher, *Fractional diffusion: exact representations of spectral functions*, J. Phys. A **30**, 1089 (1997).

A.8 A. Compte, R. Metzler, and J. Camacho, *Biased continuous time random walks between parallel plates*, Phys. Rev. E **56**, 1445 (1997).

A.9 A. Compte and R. Metzler, *The generalised Cattaneo equation for the description of anomalous transport processes*, J. Phys. A **30**, 7277 (1997).

A.10 H.-G. Kilian, B. Zink, and R. Metzler, *Aggregate model of liquids*, J. Chem. Phys. **107**, 8697 (1997).

A.11 R. Metzler, W. G. Glöckle, T. F. Nonnenmacher, and B. J. West, *"Fractional tuning" of the Riccati equation*, Fractals **5**, 597 (1997).

A.12 J. W. Dollinger, R. Metzler, and T. F. Nonnenmacher, *Bi-asymptotic fractals: Fractals between lower and upper bounds*, J. Phys. A **31**, 3839 (1998).

A.13 R. Metzler and T. F. Nonnenmacher, *Fractional diffusion, waiting time distributions, and Cattaneo-type equations*, Phys. Rev. E, **57** 6409 (1998).

A.14 M. O. Vlad, R. Metzler, and J. Ross, *Generalized Huber kinetics for nonlinear rate processes in disordered systems: Nonlinear analogs of stretched exponential*, Phys. Rev. E **57** 6497 (1998).

A.15 R. Metzler, J. Klafter, and I. M. Sokolov, *Anomalous transport in external fields: Continuous time random walks and fractional diffusion equations extended*, Phys. Rev. E **58**, 1621 (1998).

A.16 R. Metzler, J. Klafter, J. Jortner, and M. Volk, *Multiple time scales for dispersive kinetics in early events of peptide folding*, Chem. Phys. Lett. **293**, 477 (1998).

A.17 S. Jespersen, R. Metzler, and H. C. Fogedby, *Lévy flights in external force fields: Langevin and fractional Fokker-Planck equations and their solutions*, Phys. Rev. E **59**, 2736 (1999); E-print cond-mat/9810176.

A.18 R. Metzler, E. Barkai, and J. Klafter, *Anomalous diffusion and relaxation close to thermal equilibrium: A fractional Fokker-Planck equation approach*, Phys. Rev. Lett. **82**, 3563 (1999).

A.19 R. Metzler, E. Barkai, and J. Klafter, *Anomalous transport in disordered systems under the influence of external fields*, Physica **266A**, 343 (1999).

A.20 R. Metzler, E. Barkai, and J. Klafter, *Deriving fractional Fokker-Planck equations from a generalised master equation*, Europhys. Lett. **46**, 431 (1999).

A.21 R. Metzler and A. Compte, *Stochastic foundation of normal and anomalous Cattaneo-type transport*, Physica **268A**, 454 (1999).

A.22 R. Metzler, J. Klafter, and J. Jortner, *Hierarchies and logarithmic oscillations in the temporal relaxation patterns of proteins and other complex systems*, Proc. Natl. Acad. Sci. USA **96**, 11085 (1999).

A.23 E. Barkai, R. Metzler, and J. Klafter, *From continuous time random walks to the fractional Fokker-Planck equation*, Phys. Rev. E **61**, 132 (2000).

A.24 R. Metzler and J. Klafter, *Boundary value problems for fractional diffusion equations*, Physica **278A**, 107 (2000).

A.25 R. Metzler and J. Klafter, *Kramers' escape problem with anomalous kinetics: non-exponential decay of the survival probability*, Chem. Phys. Lett. **321**, 238 (2000).

A.26 R. Metzler and J. Klafter, *Subdiffusive transport close to thermal equilibrium: From the Langevin equation to fractional diffusion*, Phys. Rev. E **61**, 6308 (2000).

A.27 R. Metzler and J. Klafter, *The fractional Fokker-Planck equation: dispersive transport in an external force field*, J. Mol. Liq. **86**, 219 (2000).

A.28 R. Metzler and J. Klafter, *From a generalized Chapman-Kolmogorov equation to the fractional Klein-Kramers equation*, J. Phys. Chem. B **104**, 3851 (2000); special issue in honor of Harvey Scher.

A.29 R. Metzler and A. Compte, *Generalised diffusion-advection schemes and dispersive sedimentation: a fractional approach*, J. Phys. Chem. B **104**, 3858 (2000); special issue in honor of Harvey Scher.

A.30 R. Metzler and J. Klafter, *Accelerating Brownian motion: A fractional dynamics approach to fast diffusion*, Europhys. Lett. **51**, 492 (2000).

A.31 R. Metzler, *Generalized Chapman-Kolmogorov equation: A unifying approach to the description of anomalous transport in external fields*, Phys. Rev. E **62**, 6233 (2000).

A.32 R. Metzler and J. Klafter, *The random walk's guide to anomalous diffusion: A fractional dynamics approach*, Phys. Rep. **339**, 1 (2000).
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A.33 R. Metzler, *Molecular switching with non-exponential relaxation patterns: A random walk approach*, Phys. Rev. E **63**, 012103 (2001).

A.34 R. Metzler, *Non-homogeneous random walks, generalised master equations, fractional Fokker-Planck equations, and the generalised Kramers-Moyal expansion*, Euro. Phys. J. B **19**, 249 (2001).

A.35 R. Metzler, *The future is noisy: The role of spatial fluctuations in genetic switching*, Phys. Rev. Lett. **87**, 068103 (2001); E-print cond-mat/0107499.

A.36 R. Metzler, *Accelerating through a potential landscape: A fractional dynamics approach to enhanced motion in an external force field?*, Int. J. Mod. Phys. B **15**, 2351 (2001).

A.37 R. Metzler and J. Klafter, *Lévy meets Boltzmann: Strange initial conditions for Brownian and fractional Fokker-Planck equations*, Physica **302A**, 290 (2001).

A.38 R. Metzler and J. Klafter, *Anomalous stochastic processes in the fractional dynamics framework: Fokker-Planck equation, dispersive transport, and non-exponential relaxation*, Adv. Chem. Phys. **116**, 223 (2001).

A.39 A. Klemm, R. Metzler, and R. Kimmich, *Diffusion on random site percolation clusters: Theory and NMR microscopy experiments with model objects*, Phys. Rev. E **65**, 021112 (2002); E-print cond-mat/0112098.

A.40 H. Scher, G. Margolin, R. Metzler, J. Klafter, and B. Berkowitz, *The dynamical foundation of fractal stream chemistry: The origin of extremely long retention times*, Geophys. Res. Lett. **29**, 1061 (2002); E-print cond-mat/0202326.

A.41 R. Metzler, A. Hanke, P. G. Dommersnes, Y. Kantor, and M. Kardar, *Equilibrium shapes of flat knots*, Phys. Rev. Lett. **88**, 188101 (2002); E-print cond-mat/0110266.

A.42 R. Metzler and I. M. Sokolov, *Superdiffusive Klein-Kramers equation: Normal and anomalous time evolution and Lévy walk moments*, Europhys. Lett. **58**, 482 (2002); E-print cond-mat/0107497.

A.43 A. Hanke and R. Metzler, *Towards the molecular workshop: entropy-driven designer molecules, entropy activation, and nanomechanical devices*, Chem. Phys. Lett. **359**, 22 (2002); E-print cond-mat/0203539.

A.44 R. Metzler, A. Hanke, P. G. Dommersnes, Y. Kantor, and M. Kardar, *Tightness of slip-linked polymer chains*, Phys. Rev. E **65**, 061103 (2002); E-print cond-mat/0202075.

A.45 R. Metzler and J. Klafter, *From stretched exponential to inverse power-law: fractional dynamics, Cole-Cole relaxation processes, and beyond*, J. Non-Cryst. Solids **305**, 81 (2002).

A.46 R. Metzler, Y. Kantor, and M. Kardar, *Force-extension relations for polymers with sliding links*, Phys. Rev. E **66**, 022102 (2002); E-print cond-mat/0206057.

A.47 B. Berkowitz, J. Klafter, R. Metzler, and H. Scher, *Physical pictures of transport in heterogeneous media: Advection-dispersion, random walk and fractional derivative formulations*, Wat. Res. Res. **38**, 1191 (2002); E-print cond-mat/0202327.

A.48 R. Metzler and T. F. Nonnenmacher, *Space- and time-fractional diffusion and wave equations, fractional Fokker-Planck equations, and physical motivation*, Chem. Phys. **284**, 67 (2002).

A.49 A. Chechkin, V. Gonchar, J. Klafter, R. Metzler, and L. Tanatarov, *Stationary states of non-linear oscillators driven by Lévy noise*, Chem. Phys. **284**, 233 (2002).

A.50 R. Metzler and P. G. Wolynes, *Number fluctuations and the threshold model of kinetic switches*, Chem. Phys. **284**, 469 (2002).

A.51 R. Metzler, *Localization behaviour in a phenomenological model of three-dimensional knots*, New J. Phys. **4**, 91.1 (2002).

A.52 I. M. Sokolov and R. Metzler, *Towards deterministic equations for Lévy walks: The fractional material derivative*, Phys. Rev. E **67**, 010101(R) (2003); E-print cond-mat/0210373 (see also the positive Comment by K. V. Chukbar and V. Yu. Zaburdaev, Phys. Rev. E **68**, 033101 (2003)).

A.53 A. V. Chechkin, J. Klafter, V. Yu. Gonchar, R. Metzler, and L. V. Tanatarov, *Bifurcation, bimodality, and finite variance in confined Lévy flights*, Phys. Rev. E **67**, 010102(R) (2003).

A.54 R. Metzler and T. F. Nonnenmacher, *Fractional relaxation processes and fractional rheological models for the description of a class of viscoelastic materials*, Int. J. Plast. **19**, 941 (2003).

A.55 A. Hanke and R. Metzler, *Comment on "Why is the DNA denaturation transition first order?"*, Phys. Rev. Lett. **90**, 159801 (2003); E-print cond-mat/0110164.

A.56 A. Hanke and R. Metzler, *Entropy loss in long-distance DNA looping*, Biophys. J. **85**, 167 (2003); E-print cond-mat/0211468.

A.57 A. Hanke and R. Metzler, *Bubble dynamics in DNA*, J. Phys. A **36**, L473 (2003); E-print cond-mat/0305049.

A.58 R. Metzler and J. Klafter, *When translocation dynamics becomes anomalous*, Biophys. J. **85**, 2776 (2003) Letter to the Editor; E-print cond-mat/0306599.

A.59 A. V. Chechkin, R. Metzler, J. Klafter, V. Yu. Gonchar, and L. V. Tanatarov, *First passage time density for Lévy flight processes and the failure of the method of images*, J. Phys. A **36**, L537 (2003); E-print cond-mat/0309449.

A.60 A. Hanke, R. Metzler, P. G. Dommersnes, Y. Kantor and M. Kardar, *Tight and loose shapes in flat entangled dense polymers*, Euro. Phys. J. E **12**, 347 (2003); E-print cond-mat/0307614.

A.61 R. Metzler, *Critical switching behaviour in sparsely populated systems*, Int. J. Mod. Phys. B **17**, 5893 (2003).

A.62 A. Bakk, K. Sneppen, and R. Metzler, *Nonspecific binding of the O-R repressors CI and Cro of bacteriophage* λ, Biophys. J. **86**, 58 (2004).

A.63 R. Metzler and I. M. Sokolov, *Comment on "Anomalous heat conduction and anomalous diffusion in one-dimensional systems"*, Phys. Rev. Lett. **92**, 089401 (2004); E-print cond-mat/0401069.

A.64 A. Bakk and R. Metzler, *In vivo non-specific binding of* λ *CI and Cro repressors is significant*, FEBS Lett. **563**, 66 (2004).

A.65 A. V. Chechkin, V. Yu. Gonchar, J. Klafter, R. Metzler, and L. V. Tanatarov, *Lévy flights in a steep potential well*, J. Stat. Phys. **115**, 1505 (2004); E-print cond-mat/0306601.

A.66 T. Ambjörnsson and R. Metzler, *Chaperone-assisted translocation*, Phys. Biol. **1**, 77 (2004); E-print cond-mat/0405093.

A.67 R. Metzler and J. Klafter, *The restaurant at the end of the random walk: recent developments in fractional dynamics descriptions of anomalous dynamical processes*, J. Phys. A **37**, R161 (2004), Topical review.
@ Selected as Emerging Research Front 2009 (Thomson Reuters Science Watch, http://sciencewatch.com/dr/erf/2009/09octerf/09octerfMetzET/)

A.68 Hans C. Fogedby, R. Metzler and A. Svane, *Exact solution of a linear molecular motor model driven by two-step fluctuations and subject to protein friction*, Phys. Rev. E **70**, 021905 (2004); E-print cond-mat/0312364.

A.69 A. Bakk and R. Metzler, *Nonspecific binding of the* O_R *repressors CI and Cro of bacteriophage* λ, J. Theor. Biol. **231**, 525 (2004).

A.70 A. Bakk and R. Metzler, *Two states do not necessarily correspond to a two-state transition: van't Hoff enthalpy in the case of a small entropy difference between the states*, Chem. Phys. Lett. **398**, 190 (2004).

A.71 R. Metzler and P. G. Dommersnes, *Helical packaging of semiflexible polymers in bacteriophages*, Euro. Biophys. J. **33**, 497 (2004).

A.72 A. Bakk, K. Sneppen, and R. Metzler, *Sensitivity of phage lambda upon variations of the Gibbs free energy*, Israel J. Chem. **44**, 309 (2004) JortnerFest special issue; E-print cond-mat/0310656.

A.73 I. M. Sokolov and R. Metzler, *Non-uniqueness of the first passage time density of Lévy random processes*, J. Phys. A **37**, L609 (2004); E-print cond-mat/0405091.

A.74 T. Ambjörnsson and R. Metzler, *Binding dynamics of single-stranded DNA binding proteins to fluctuating bubbles in breathing DNA*, J. Phys. Cond. Mat. **17**, S1841 (2005), special issue in honour of Lothar Schäfer.

A.75 I. M. Sokolov, R. Metzler, K. Pant, and M. C. Williams, *Target search of N sliding proteins on a DNA*, Biophys. J. **89**, 895 (2005).

A.76 A. V. Chechkin, V. Yu. Gonchar, J. Klafter, and R. Metzler, *Natural cutoff in Lévy flights caused by dissipative non-linearity*, Phys. Rev. E **72** 010101(R) (2005).

A.77 S. K. Banik, T. Ambjörnsson, and R. Metzler, *Stochastic approach to DNA breathing dynamics*, Europhys. Lett. **71**, 852 (2005); E-print q-bio.BM/0506025.

A.78 R. Metzler and T. Ambjörnsson, *Sensing DNA – DNA as nanosensor: a perspective towards nanobiotechnology based on local DNA-melting*, J. Comp. Theor. Nanoscience **2**, 389 (2005); E-print cond-mat/0508490.

A.79 T. Ambjörnsson and R. Metzler, *Coupled dynamics of DNA breathing and of proteins that selectively bind to single-stranded DNA*, Phys. Rev. E **72**, 030901(R) (2005); E-print q-bio.BM/0411053.

A.80 A. V. Chechkin, V. Yu. Gonchar, J. Klafter, and R. Metzler, *Barrier crossing of a Lévy flight*, Europhys. Lett. **72**, 348 (2005).

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A.82 T. Ambjörnsson, M. Lomholt, and R. Metzler, *Directed motion emerging from two coupled random processes: Translocation of a chain through a nanopore driven by binding proteins*, J. Phys. Cond. Mat. **17**, S3945 (2005), special issue on molecular motors; E-print q-bio.BM/0508029.

A.83 T. Ambjörnsson and R. Metzler, *Blinking statistics of a molecular beacon triggered by end-denaturation of DNA*, J. Phys. Cond. Mat. **17**, S4305 (2005), special issue on diffusion processes; E-print cond-mat/0508492.

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A.87 R. Metzler, W. Reisner, R. Riehn, R. Austin, J. Tegenfeldt, and I. M. Sokolov, *Diffusion mechanisms of localised knots along a polymer*, Europhys. Lett. **76**, 696 (2006); E-print cond-mat/0609514.

A.88 A. V. Chechkin, V. Y. Gonchar, J. Klafter, and R. Metzler, *Fundamentals of Lévy flight processes*, Adv. Chem. Phys. **133**, 439 (2006), review article; E-print NORDITA/2006-032.

A.89 R. Metzler, T. Ambjörnsson, A. Hanke, and S. Levene, *Single DNA conformations and biological function*, Review article, J. Comp. Theor. Nanoscience **4**, 1 (2007); E-print physics/0609139.

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A.91 E. Ercolini, F. Valle, J. Adamcik, R. Metzler, P. de los Rios, J. Roca, and G. Dietler, *Fractal dimension and localization of DNA knots*, Phys. Rev. Lett. **98**, 058102 (2007); E-print cond-mat/0609084.
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A.93 T. Ambjörnsson, M. A. Lomholt, S. K. Banik, and R. Metzler, *Master equation approach to DNA-breathing in heteropolymer DNA*, Phys. Rev. E **75**, 021908 (2007); E-print cond-mat/0610547.

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A.98 M. A. Lomholt, I. M. Zaid, and R. Metzler, *Subdiffusion and weak ergodicity breaking in the presence of a reactive boundary*, Phys. Rev. Lett. **98**, 200603 (2007); E-print arXiv:0704.1769.

A.99 T. Koren, M. A. Lomholt, A. V. Chechkin, J. Klafter, and R. Metzler, *Leapover lengths and first passage time statistics for Lévy flights*, Phys. Rev. Lett. **99**, 160602 (2007); E-print arXiv:0706.3641.

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D.4 R. Metzler, *Topology matters: Some aspects of DNA physics* invited contribution to J. T. Fourkas, P. Levitz, M. Urbakh, and K. J. Wahl, Editors, *Dynamics in Small Confining Systems VI*, Materials Research Society Symposium Proceedings Vol. 790, Materials Research Society, Warrendale, Pennsylvania, 2004.

D.5 R. Metzler, T. Ambjörnsson, M. A. Lomholt, and O. Krichevsky, *Dynamics of DNA conformations and DNA-protein interactions*, invited contribution to J. T. Fourkas, P. Levitz, R. Overney, and M. Urbakh, Editors, *Dynamics in Small Confining Systems VI*, Materials Research Society Symposium Proceedings Vol. 899E, article 0899-N03-06.1 (2006).

D.6 R. Metzler, *Weak ergodicity breaking, irreproducibility, and ageing in anomalous diffusion processes*, AIP Conf. Proc. **1579**, 89 (2014), edited by M. Martínez-Mares , L. Dagdug , A. M. Marténez-Argüello, and M.-V. Vázquez.

E Theses:

E.1 R. Metzler, *Modellgleichung für anomale Diffusion (Model equation for anomalous diffusion)*, Diploma thesis, Ulm University, May 1994 (unpublished).

E.2 R. Metzler, *Modellierung spezieller dynamischer Probleme in komplexen Materialien (Modelling of special dynamical problems in complex materials)*, Doctoral thesis, Ulm University, Universitätsverlag Ulm, 1996.

F Other:

F.1 R. Metzler, Web interview, ISI Essential Science Indicator, New Hot Paper May 2003 [Ref Phys. Rep. **339**, 1 (2000)], http://www.esi-topics.com/nhp/2003/may-03-RalfMetzler.html

F.2 R. Metzler, Book review: Physiology, Promiscuity and Prophecy at the Millennium: A Tale of Tails by B. J. West, Fractals **9**, 373 (2001).

F.3 R. Hilfer, R. Metzler, A. Blumen and J. Klafter, Preface to the Special Issue on Strange Kinetics, dedicated to Andrzej Plonka, Chem. Phys. **284**, 1 (2002).

F.4 R. Metzler, *Topology matters: constraints versus fluctuations in biological systems*, Arkhimedes 4/2003, 9 (Finnish Physical Society periodical, invited article).

F.5 R. Metzler and J. Klafter, Web interview, Science Watch Emerging Research Front 2009 [Ref J. Phys. A **37**, R161 (2004)], http://sciencewatch.com/dr/erf/2009/09octerf/09octerfMetzET/

F.6 R. Metzler, Web interview, IOP 60 seconds with ... Authors Edition 2005 [Ref J. Phys. A **37**, R161 (2004)], http://www.iop.org/EJ/journal/-page=featauth/-author=470/1751-8121.

F.7 J.-F. Joanny, R. Metzler, F. Ritort, and D. Weitz, Preface to the Special focus on Polymer physics of the cell, Phys. Biol. **6**, 020301 (2009).

F.8 R. Metzler, Book review: Fractional Calculus by Richard Hermann, Physics Today **65**(2), 55 (2012).

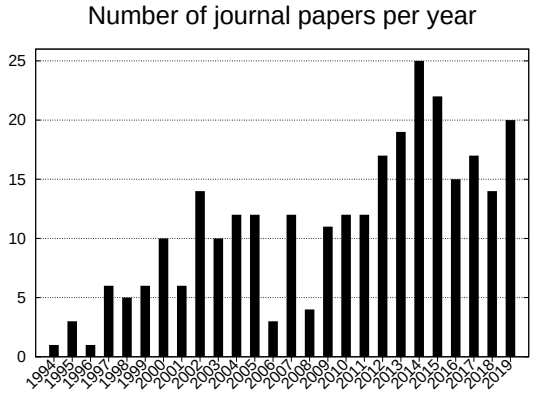
F.9 R. Metzler, Book review: The H-function by A. M. Mathai, R. K. Saxena, and H. J. Haubold, J. Approx. Theory **164**, 1323 (2012).

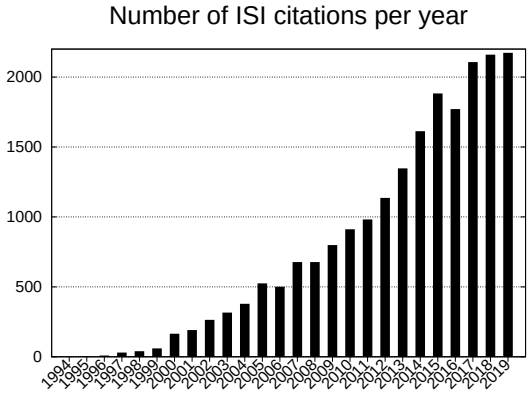
F.10 E. Gudowska-Nowak, K. Lindenberg, and R. Metzler, Preface to the special issue of J. Phys. A on *Marian Smoluchowski's 1916 paper—a century of inspiration*, J. Phys. A **50**, 380301 (2017).

F.11 D. Grebenkov, D. Holcman, and R. Metzler, Preface to the special issue of J. Phys. A on *New trends in first-passage methods and applications in the life sciences and engineering*, accepted to J. Phys. A.

F.12 G. Muñoz-Gil, G. Volpe, M. A. Garcia-March, R. Metzler, M. Lewenstein, and C. Manzo, *AnDi: The Anomalous Diffusion Challenge*, Competition call for analysis of stochastic time series, E-print arXiv:2003.12036.

G Statistics (as of 2020-01-03):
Hirsch factor 66 (H-factor= max{# articles with at least this # of citations}, Web of Science)
Cumulative citations (Web of Science) 20,842. $> 2,000$ p.a. since 2017
Average citations per item: 72.4
Google Scholar statistics: 30,493 (15,029 since 2015) citations, H-index 78 (57), I10-index 253 (I10={# articles > 10citations in last 10 years}, 201 since 2015)





3 SCIENTIFIC MEETINGS

May 1994 Gordon Research Conference on Fractals, San Miniato, Toscana, Italy

Oct 1994 International Workshop on Nonlinear Dynamics, Fractality and Selforganization of Complex Systems, Würzburg, Germany

Mar 1996 Second International Symposium on Fractals in Biology and Medicine, Monte Verità Centro Seminariale, Ascona, Ticino, Switzerland

Aug 1997 The 1997 İzmir Summer Academy, Otel Altın Yunus, Çeşme, Ege, Turkey (Co-organiser)

May 1998 Max Born Symposium on Anomalous Diffusion, Ladek Zdroj, Poland

Jul 1998 Percolation and Disordered Systems, Rauischholzhausen castle, Germany

Nov 1998 Materials Research Society Fall Meeting, Boston Marriott and Westin Hotels, Copley Place, Boston, Massachusetts

Jun 1999 Dynamical Processes in Condensed Molecular Systems, Polish–Israeli–German Symposium, Cracow, Poland (Invited speaker)

Aug 1999 International Conference on Stochastic and Chaotic Dynamics, Ambleside, Lake District, UK

Feb 2000 ICS-2000, 65th Meeting of the Israel Chemical Society, Ben Gurion University of the Negev, Beer Sheva, Israel (Invited speaker)

Nov 2000 Materials Research Society Fall Meeting, Hynes Convention Center, Boston, Massachusetts (Invited speaker)

Jun 2001 Dynamics Days Europe 2001, Lecture hall centre, Technical University Dresden, Germany (Invited speaker)

Sep 2001 14th Marian Smoluchowski Symposium on Statistical Physics: Fundamentals and Applications, Zakopane, Poland (Invited speaker)

May 2002 Annual meeting of the Danish Physical Society (Dansk Fysisk Selskabs årsmøde), Hotel Nyborg Strand (Invited sub-plenary speaker)

Jun 2002 Gordon Research Conference on Biopolymers, Salve Regina University, Newport, Rhode Island

Aug 2002 Summer School on Dynamics of Biological Systems, Krogerup Højskole, Humlebæk, Denmark (Invited speaker)

Mar 2003 Annual meeting of the Finnish Physical Society (Fysiikan päivät) Helsinki University (Invited plenary speaker)

Mar 2003 NATO ASI School on Forces, Growth and Form in Soft Condensed Matter: At the Interface between Physics and Biology, Bardøla Høyfjellshotell, Geilo, Norway

May 2003 INTAS03 Meeting and Mini-Symposium on Anomalous Dynamical Processes, NORDITA, Copenhagen, Denmark (Organiser)

Jun 2003 JortnerFest, Perspectives in the Chemical Sciences, celebrating Joshua's 70th birthday, Tel Aviv University, Israel (Per invitation)

Aug 2003 Hairy Interfaces and Stringy Molecules, An International Summer School and Workshop on Colloids and Biophysics, University of Southern Denmark, Odense (Co-organiser)

Aug 2003 Niels Bohr Summer Institute on Complexity and Criticality, Niels Bohr Institute, Copenhagen

Nov 2003 Jülich Soft Matter Days 2003, Congrescentrum Rolduc, Kerkrade, Netherlands

Dec 2003 Materials Research Society Fall Meeting, Hynes Convention Center, Boston, Massachusetts (Invited speaker)

Feb 2004 ICS-2004, 69th Meeting of the Israel Chemical Society, David Inter-Continental, Tel Aviv, Israel (Invited speaker)

Mar 2004 Biofysikkmøtet 2004, Meeting of the Norwegian Physical Society Biophysics Section, Kongsvold fjeldstue, Norway (Invited speaker)

Apr 2004 Workshop on Statistical Physics of Molecular and Cell Biological Systems and Networks, ESF Programme Statistical Physics of Glassy and Non-Equilibrium Systems (SPHINX), Internationales Wissenschaftsforum Heidelberg, Germany (Invited speaker)

May 2004 Annual meeting of the Danish Physical Society (Dansk Fysisk Selskabs årsmøde), Hotel Nyborg Strand

Jul 2004 Fractional Differentiation and its Applications 2004, Bordeaux, France (Invited speaker)

Jul 2004 Intelligent Systems for Molecular Biology/European Conference on Computational Biology 2004, SIG Bioinformatics and Statistical Physics, Glasgow, Scotland (Invited speaker)

Aug 2004 ICBP 2004, The 5th International Conference on Biological Physics, Chalmers Conference Center, Chalmers tekniska högskola, Göteborg, Sweden (Invited speaker)

Aug 2004 Nordita Workshop on Statistical Physics, Soft Matter and Biological Physics, NORDITA and Niels Bohr Institutet, København, Denmark (Main organiser)

Sep 2004 Expert Workshop on Physical Aspects of Multiscale Modeling, Hotel Golf, Bled, Slovenia (Invited round table member on future funding goals of the US Army Research Office)

Dec 2004 Nordic Workshop on Networks, NORDITA and Niels Bohr Institutet, København, Denmark (Co-organiser)

Jan 2005 Workshop and Colloquium in honour of Lothar Schäfer's 60th birthday, University of Essen (Invited speaker)

Feb 2005 Annual meeting of the Biophysical Society, Long Beach Convention Center, Long Beach, CA

Mar 2005 69. Jahrestagung der Deutschen Physikalischen Gesellschaft at Humboldt and Technical Universities, Berlin (Invited Hauptvortrag)

Apr 2005 Workshop on the occasion of Gert Zumofen's 65th birthday, ETH Zürich Hönggerberg, Switzerland (Invited speaker)

May 2005 Computational problems in physics – CPiP 2005, Unitas Congress Center, Helsinki (Invited speaker and problem presenter)

Jun 2005 Complex Systems under the Midnight Sun, Nordic Network Meeting on the Statistical Physics of Soft and Complex Matter, Radisson Hotel, Tromsø, Norway (Co-organiser)

Aug 2005 In Search of a Theory of Complexity, Discussion meeting, University of North Texas, Denton (Invited speaker and discussion panel member)

Aug 2005 Physics of Life: Dynamics, emergence, and Networks. Workshop and Summer School in Biological Physics, Krogerup, Humlebæk, Denmark (Co-organiser)

Sep 2005 Brownian Motion: A Paradigm of Soft Matter and Biological Physics, ASC Workshop on Brownian Motion, Arnold Sommerfeld Center for Theoretical Physics, Ludwig-Maximilians-University, München, Germany (Invited speaker)

Nov 2005 Materials Research Society Fall Meeting, Hynes Convention Center, Boston, Massachusetts (Invited speaker)

Mar 2006 Workshop on Knots and Macromolecules, Istituto Veneto di Scienze Lettere ed Arti ((IVSLA), Venice, Italy (Invited speaker)

May 2006 NORDITA Conference on Statistical Physics, Soft Matter, and Biological Physics, NORDITA, Copenhagen, Denmark (Main organiser)

May 2006 Challenges in Chemical Physics: Complex Structures, Anomalous Statistics, Single Molecules, in honour of Yossi Klafter's 60th birthday, Tel Aviv University, Ramat Aviv, Israel (Co-organiser)

Jun 2006 Noise in Life 2006, StochDyn Workshop, Barcelona, Spain (Invited speaker)

Jul 2006 Anomalous Transport: Experimental Results and Theoretical Challenges, 373rd Wilhelm und Else Heraeus Seminar, Physikzentrum Bad Honnef near Bonn, Germany (Invited keynote speaker)

Oct 2006 Nonlinear Dynamics of Complex Media, University of Bayreuth, Germany (Invited speaker)

Nov 2006 Soft-matter meets Hard-matter Symposium, Technical University, Munich, Germany (Invited speaker)

Apr 2007 Theory, Modelling and Evaluation of Single-Molecule Measurements, Lorentz Center, University of Leiden, The Netherlands (Invited speaker)

Jul 2007 The Fourteenth Applied Probability Society of INFORMS Conference, EURANDOM and Eindhoven University of Technology, Eindhoven, The Netherlands (Invited speaker)

Sep 2007 Modeling and Computer Simulations of Microswimming and Bacterial Motility, Technical University of Munich, Germany

Sep 2007 20th Marian Smoluchowski Symposium on Statistical Physics, Zakopane, Poland (Invited speaker)

Mar 2008 Workshop on Knots and Macromolecules II, Istituto Veneto di Scienze Lettere ed Arti (IVSLA), Venice, Italy (Invited speaker)

Mar 2008 Fifth International Symposium on Fractals in Biology and Medicine, Alta Scuola Pedagogica, Locarno, Switzerland (Invited speaker)

Mar 2008 Modeling anomalous diffusion and relaxation: from single molecules to the flight of the albatross, The Institute for Advanced Studies, The Hebrew University of Jerusalem, Israel (Co-organiser and Invited speaker)

May 2008 Meeting in honor of Alex Blumen on the occasion of his 60th birthday, University of Freiburg, Germany (Invited speaker)

Aug 2008 The 18th Jyväskylä Summer School, Jyväskylän Yliopisto, Finland (Invited Course Lecturer)

Aug 2008 NORDITA Workshop on Movement and Search: From biological cells to spider monkeys, NORDITA, Alba Nova, Stockholm, Sweden (Main organiser and invited speaker)

Sep 2008 21st Marian Smoluchowski Symposium on Statistical Physics, Zakopane, Poland (Invited speaker)

Nov 2008 Jülich Soft Matter Days, Gustav Stresemann Institut, Bonn, Germany (Invited speaker)

Dec 2008 Stochastic Methods in Science and Technology, in honour of Aleksander Weron's 40th anniversary in science, Hugo Steinhaus Center, Wrocław University of Technology, Poland (Invited speaker)

Mar 2009 Biophysical Society 53rd Annual Meeting, Boston Convention and Exhibition Center, Boston, MA (Speaker and platform session co-chair)

Mar 2009 NORDITA Program on Theoretical Assessment of the Biological Effects of Nano Materials, NORDITA, Alba Nova, Stockholm, Sweden (Steering group member)

Apr 2009 Workshop in honour of the 60th birthday of Attilio Stella, Centro Culturale Don Orione, Venice (Invited speaker)

Jun 2009 ISF Workshop on Non-local Pattern-Forming Systems, Technion, Haifa, Israel (Invited speaker)

Jul 2009 Workshop on Animal Movement and Search Strategies, University of Bristol, UK (Invited speaker)

Sep 2009 Lorentz workshop on Physics goes DNA: from base-pairs to chromatin, Lorentz Center, Universiteit Leiden, Holland (Co-organiser)

Sep 2009 Dynamics in Systems Biology, University of Aberdeen, Scotland (Invited speaker)

Oct 2009 Workshop in honour of the 70th birthday of Hans Fogedby, Niels Bohr Institutet, København, Denmark (Invited speaker)

Nov 2009 Workshop on Anomalous Diffusion. Theory and Applications, Wroclaw University of Technology, Poland (Invited speaker)

Nov 2009 Materials Research Society Fall Meeting, Hynes Convention Center, Boston, MA (Session co-organiser)

Mar 2010 4th International Workshop on Dynamics in Confinement, Institut Laue-Langevin, Grenoble, France (Invited speaker)

Mar 2010 Mini-Workshop on Fractional Diffusion, University of Bologna, Italy (Invited speaker)

Jun 2010 CECAM Workshop on Coarse-Grain Mechanics of DNA: Bases to Chromosomes, École Normale Supérieure de Lyon – Centre Blaise Pascal, Lyon, France (Invited speaker)

Jun 2010 Third FRIAS Black Forest Focus on Soft Matter – Frontiers in Dynamics: From Random to Quantum Walks, Breisach am Rhein, Germany (Invited speaker)

Jun 2010 CECAM Workshop 2010 on Complex dynamics of fluids in disordered and crowded environments, École Normale Supérieure de Lyon – Centre Blaise Pascal, Lyon, France (Invited speaker)

Aug 2010 Summer School on Single Molecules Biophysics, University of Leuven, Belgium (Invited course lecturer)

Sep 2010 23rd Marian Smoluchowski Symposium on Statistical Physics, Kraków, Poland (Invited speaker)

Oct 2010 Fractional differentiation and its applications 2010, University of Extremadura, Badajoz, Spain (Invited speaker)

Feb 2011 2nd Nordic Workshop on Statistical Physics: Biological, Complex and Non-equilibrium Systems, NORDITA, Stockholm (Invited AlbaNova and NORDITA Colloquium speaker)

Apr 2011 Search and Exploration, Institut d'Études Scientifiques de Cargèse, Corsica (Co-organiser)

May 2011 NORDITA workshop on Statistical Mechanics and Computation of DNA self-assembly, Hotel Arkipelag, Marienhamn, Åland, Finland (Co-organiser)

May 2011 Steinhaus Symposium on Stochastic Methods, Hugo Steinhaus Center, Wroclaw, Poland (Invited speaker)

Aug 2011 Workshop on Weak Chaos, Infinite Ergodic Theory, and Anomalous Dynamics, Max Planck Institute for the Physics of Complex Systems, Dresden (Invited speaker)

Sep 2011 Safed Summer Workshop: DNA search: from biophysics to cell biology, Safed (Tsfat), Upper Galillee, Israel (Invited speaker)

Sep 2011 24th Marian Smoluchowski Symposium on Statistical Physics, Zakopane, Poland (Invited speaker)

Sep 2011 NATO Advanced Research Workshop: Broadband Dielectric Spectroscopy and its Advance Technological Applicaions, Hotel "Les Flamants Roses", Canet-en-Roussillon, France (Invited keynote speaker)

Oct 2011 NORDITA programme on Foundations and Applications of Non-Equilibrium Statistical Mechanics, NORDITA, Stockholm (Invited speaker)

Oct 2011 STRESS3, Stochastic Transport and Emergent Scaling in Earth-surface Processes, Camp Galilee, Lake Tahoe, Nevada, USA (Invited speaker)

Feb 2012 Workshop: Statistical Methods and Models 2012, Technical University of Munich, Garching, Germany (Invited speaker)

Mar 2012 Frühjahrstagung der Deutschen Physikalischen Gesellschaft at Humboldt and Technical Universities, Berlin (Invited Topical talk)

May 2012 IFAC Workshop on Fractional Dynamics, The 5th IFAC Symposium on Fractional Differentiation and its Applications, Hohai, University, Nanjing, China (Invited plenary speaker and session co-organiser)

May 2012 Search and Stochastic Phenomena in Complex Physical and Biological Systems, Mallorca (Invited speaker)

Jun 2012 Understanding and Managing Randomness in Physics, Chemistry and Biology, XXIII Sitges Conference in Statistical Mechanics, Sitges, Barcelona, Spain (Invited speaker)

Jun 2012 IWAP 2012 – International Workshop on Applied Probability, Inbal Hotel, Jerusalem, Israel (Invited speaker and session organiser)

Jul 2012 ZiF Workshop on Nonlocal Operators: Analysis, Probability, Geometry and Applications, University of Bielefeld, Germany (Invited speaker)

Jul 2012 Arnold-Sommerfeld workshop on Complex transport in strongly interacting systems, Arnold Sommerfeld Center for Theoretical Physics, LMU, Munich, Germany (Invited speaker)

Aug 2012 DNA dynamics and life strategies, Krogerup Højskole, Humlebæk, Denmark (Invited course lecturer)

Sep 2012 16th Biennial Computational Techniques and Applications Conference (CTAC), Brisbane, Australia (Invited plenary speaker)

Oct 2012 Venice meeting on fluctuations in small complex systems, Istituto Veneto di Science, Lettere ed Arti, Palazzo Franchetti, Venezia, Italy (Co-organiser)

Nov 2012 Potsdam Days on Bioanalysis 2012, Fraunhofer Institute for Biomedical Engineering, Potsdam, Germany (Invited keynote speaker)

Apr 2013 4th RRI School on Statistical Physics, Raman Research Institute, Bangalore, India (Invited course lecturer)

May 2013 16th Annual Workshop on Phase Transitions and Critical Phenomena, Lviv, Ukraine (Invited Ising Lecture)

Jun 2013 Search and Exploration, Institut d'Études Scientifiques de Cargèse, Corsica (Co-organiser)

Jul 2013 542th Wilhelm und Else Heraeus-Seminar on Classical and Quantum Transport in Complex Networks, Bad Honnef, FRG (Invited speaker)

Sep 2013 5th Leopoldo García-Colín Mexican Meeting on Mathematical and Experimental Physics (Invited plenary speaker)

Sep 2013 Non-standard transport, Université de Lyon, France (Invited speaker)

Oct 2013 Synergetic Approaches to Complexity, International Focus Workshop, Max Planck Institute for the physics of complex systems, Dresden, Germany (Invited speaker)

Oct 2013 Dynamics in Crowded Systems, An International Workshop, Schloß Lindstedt, Potsdam, Germany (Main organiser and Invited speaker)

Nov 2013 BCAM Workshop on Fractional Calculus, Probability and Non-local Operators: Applications and Recent Developments, Basque Center for Applied Mathematics, Bilbao, Spain (Invited speaker)

Nov 2013 Workshop on Motion in Structured Environments, University of Potsdam

Dec 2013 Doing Advanced Science Together, Hebrew University–Potsdam University symposium in fundamental applied science (Invited speaker)

Dec 2013 Symposium on Stochasticity, Tel Aviv University (Main organiser and invited speaker)

Jan 2014 7th Jagna International Workshop on Analysis of fractional stochastic processes: advances and applications, Jagna, Bohol, Philippines (Invited speaker)

Mar 2014 Physics Days 2014, 48th annual meeting of the Finnish Physical Society, Tampere University of Technology, Tampere, Finland (Invited plenary speaker)

Mar 2014 International Workshop on Brownian Motion in Confined Geometries, Max Planck Institute for the physics of complex systems, Dresden, Germany (Invited speaker)

Jun 2014 559. WE-Heraeus Seminar: The Versatile Action of Noise, Jacobs University Bremen, Germany (Invited speaker)

Aug 2014 Condensed Matter in Paris 2014, Mini-symposium on Statistical challenges in Single-Particle Tracking (Co-organiser and Invited speaker)

Aug 2014 Surmounting "The Insurmountable"– Pathways of Biologial Physics, POSCO International Center, POSTECH, Pohang, South Korea (Invited speaker)

Sep 2014 XXXIV Dynamics Days Europe, University of Bayreuth, Germany (Invited plenary speaker)

Oct 2014 Venice meeting on Fluctuations in small complex systems II Istituto Veneto di Science, Lettere ed Arti, Palazzo Franchetti, Venezia, Italy (Co-organiser)

Nov 2014 Potsdam Days on Bioanalysis 2014, Fraunhofer Institute for Cell Therapy and Immunology, Potsdam, Germany (Invited speaker)

Dec 2014 4th Workshop on Anomalous Diffusion, Hugo Steinhaus Center, Wroclaw, Poland (Invited speaker)

Apr 2015 PANACM 2015, 1st Pan-American Congress on Computational Mechanics, Buenos Aires, Argentina (Invited keynote speaker)

May 2015 International ConferenceÂăon Stochastic Modeling of Anomalous Dynamics in Complex Physical and Biological Systems, Hugo Steinhaus Center, Wroclaw, Poland (Invited speaker)

May 2015 International workshop on Random Walks and Nonlinear Dynamics in the Life of Cells, Max Planck Institute for the physics of complex systems, Dresden, Germany (Invited speaker)

Sep 2015 Anomalous dynamics in biological systems, Korea Institute for Advanced Study (KIAS), Seoul, South Korea (Co-organiser and Invited speaker)

Sep 2015 Statistical Physics and Anomalous Dynamics of Foraging, Max Planck Institute for the physics of complex systems, Dresden, Germany (Invited speaker)

Sep 2015 Marian Smoluchowski Symposium on Statistical Physics, Krakow, Poland (Programme committee member and Invited speaker)

Oct 2015 Black Forest meeting on Anomalous diffusion: wild and bad?, König Karls Bad, Bad Wildbad, Germany (Main organiser and Invited speaker)

Nov 2015 TAU-HUJI-BIU-Potsdam Workshop on Stochasticity of Cells and Genes, Tel Aviv University (Co-organiser and Invited speaker)

Dec 2015 Conference on Physical and Biophysical Chemistry: Theory and Experiment, Victor Menezes Convention Centre, IIT Bombay, Mumbai (Invited speaker)

Dec 2015 Workshop on Anomalous diffusion, University of Potsdam—Wrocław University of Technology KoUP I workshop, Wrocław, Poland (Co-organiser and Invited speaker)

Feb 2016 81st Annual meeting of the Israel Chemical Society, David Intercontinental Hotel, Tel Aviv (Invited keynote speaker)

Feb 2016 Workshop on Dynamics of fluids in heterogeneous media, University of Düsseldorf (Invited speaker)

Mar 2016 80. Jahrestagung der DPG und DPG-Frühjahrstagung, Regensburg (Invited talk, Hauptvortrag)

Mar 2016 Stochastic Modelling of Transport Processes in Biology, University of Manchester (Invited speaker)

Apr 2016 Real World Risks and Extremes: correlation and quantification, Warwick Business School London, The Shard (Invited participant)

Apr 2016 Journal of Physics Board Meeting, Scientific Part, Grange Fitzrovia Hotel, London (Invited speaker)

May 2016 Workshop on Quantifying complex transport with Lévy walks: from cold atoms to humans and robots, Physikzentrum Bad Honnef, Germany (Invited speaker)

Jun 2016 Stochastic Dynamical Systems in Biology: Numerical Methods and Applications, Isaac Newton Institute, Cambridge (Invited speaker)

Jul 2016 2016 Venice workshop on Polymers with spatial and mechanical constraints, Istituto Veneto di Science, Lettere ed Arti, Palazzo Franchetti, Venezia, Italy (Invited speaker)

Jul 2016 Workshop on Stochastic Processes under Constraints, University of Augsburg (Invited speaker)

Aug 2016 Ergodicity breaking and anomalous dynamics, Mathematics Institute, University of Warwick, Coventry (Invited speaker)

Aug 2016 International CECAM-FI Workshop on Biomembranes: The Consequences of Complexity, Helsinki (Invited speaker)

Sep 2016 European Condensed Matter Physics conference, Groningen, Holland (Invited speaker)

Sep 2016 29th Marian Smoluchowski Symposium on Statistical Physics, Zakopane, Poland (Invited speaker)

Oct 2016 Venice meeting on Fluctuations in small complex systems III Istituto Veneto di Science, Lettere ed Arti, Palazzo Franchetti, Venezia, Italy (Co-organiser)

Oct 2016 Methods and problems in mathematical physics, University of Bologna (Invited speaker)

Nov 2016 Operational methods in fractional dynamics, Polish Academy of Sciences, Cracow, Poland (Invited plenary talk)

Nov 2016 Workshop on stochasticity and fluctuations in small systems, POSCO International Centre, POSTECH, Pohang, Korea (Co-organiser and invited speaker)

Dec 2016 Wrocław-Potsdam meeting on dynamics, University of Potsdam (Main organiser and invited speaker)

Dec 2016 Discussion and kick-off meeting LE STUDIUM, Université d'Orléans, France (Invited round table member)

Feb 2017 Biophysical Society Annual Meeting, New Orleans, USA (Invited speaker)

Mar 2017 Stochastic dynamics: models and applications, International Center for Advanced Studies, Buenos Aires, Argentina (Co-organiser and invited speaker)

May 2017 The Tony and Pat Houghton memorial workshop on Nonequilibrium Physics of Soft Matter and Biological Systems, Brown University, Providence, Rhode Island, USA (Invited speaker)

May 2017 Snowbird minisymposium on Random walks and anomalous transport, SIAM Conference on Applications of Dynamical Systems, Snowbird, Utah, USA (Invited speaker)

Jul 2017 ΣΦ2017 International conference on statistical physics, Corfu, Greece (Invited plenary speaker and session organiser)

Aug 2017 Anomalous Dynamics in Complex Systems: From Chaos on Nanoscales to Search in Biology, Sokos Hotel Ilves, Tampere, Finland (Co-organiser)

Sep 2017 30th Marian Smoluchowski Symposium on Statistical Physics, Jagiellonian University, Krakow, Poland (Invited keynote speaker)

Sep 2017 Theory and Modeling of Complex Systems in Life Sciences, The Euler International Mathematical Institute, St Petersburg, Russia (Invited speaker)

Sep 2017 Summer school on stochastic processes with applications to physics & biology, Acre, Israel (Course lecturer)

Oct 2017 Discussion meeting LE STUDIUM, Université d'Orléans, France (Invited round table member)

Oct 2017 Sissa Mini-Workshop 2017 on Statistical and Molecular Biophysics, Scuola Internazionale Superiore di Studi Avanzati, Trieste, Italy (Invited speaker)

Feb 2018 Symposium in honor of Igor Sokolov, Bernstein Center for Computational Neuroscience Berlin, Germany (Co-organiser and invited speaker)

Apr 2018 Biological Diffusion and Brownian Dynamics Brainstorm 4 (BDBDB 4), Studio Villa Bosch, Heidelberg (Invited speaker)

May 2018 671st WE-Heraeus-Seminar on Search and Problem Solving by Random Walks: Drunkards vs Quantum Computers, Bad Honnef, Germany (Invited speaker)

Jul 2018 Summer School on Soft Matters and Biophysics, Shanghai, China (Invited course lecturer)

Jul 2018 Erice Conference on New Trends in Nonequilibrium Statistical Mechanics: Classical and Quantum Systems, Ettore Majorana Center, Erice, Sciliy, Italy (Invited speaker, EPS lecturer)

Aug 2018 CECAM International Workshop on Biological Membranes: Tiny Lipids with Grand Functions", Helsinki, Finland (Invited speaker)

Sep 2018 31st Marian Smoluchowski Symposium on Statistical Physics, Jagiellonian University, Krakow, Poland (Invited speaker)

Sep 2018 Fractional calculus and applications, workshop in honour of Profs Rudolf Gorenflo and Theo F Nonnenmacher, University of Potsdam (Main organiser)

Sep 2018 Workshop on Probabilistic methods in statistical physics for extreme statistics and rare events, Centro di ricerca matematica (CRM) Ennio de Giorgi, Pisa, Italy (Invited speaker)

Oct 2018 Next Step in Random Walks: Understanding Mechanisms Behind Complex Spreading Phenomena, Tel Aviv University, Israel (Invited speaker)

Oct 2018 Venice meeting on Fluctuations in small complex systems IV Istituto Veneto di Science, Lettere ed Arti, Palazzo Franchetti, Venezia, Italy (Co-organiser)

Nov 2018 2nd International Symposium on Operational Methods in Fractional Dynamics, Kraków, Poland (Invited speaker)

Mar 2019 Gordon Research Conference on Movement Ecology of Animals, Il Ciocco, Italy (Invited speaker)

Mar 2019 DPG-Frühjahrstagung, Regensburg (Invited talk, Hauptvortrag)

May 2019 Statistical Physics of Complex Systems, EPS Statistical and Nonlinear Physics Division, NORDITA, Stockholm (Invited speaker)

Jun 2019 Engineering of Chemical Complexity, 10th International Conference, Seminaris Hotel, Potsdam, Germany (Session co-organiser and Invited speaker)

Jun 2019 Sino-German symposium on Anomalous and non-ergodic diffusion, JJ Sun Hotel, Lanzhou, China (Co-organiser and course lecturer)

Jul 2019 International Workshop on Nonextensive Statistical Mechanics, Superstatistics and beyond: Theory and Applications in astrophysical and other complex systems, Ettore Majorana Foundation and Centre for Scientific Culture in Erice, Sicilia, Italy (Invited speaker)

Jul 2019 27th IUPAP International Conference on Statistical Physics, StatPhys27, Buenos Aires, Argentina (Invited speaker)

Aug 2019 50 Years of Stochastic Processes at UCSD: a symposium in honor of Katja Lindenberg, UCSD, La Jolla, CA (Invited speaker)

Sep 2019 2nd Black Forest meeting on Anomalous diffusion: wild and bad?, König Karls Bad, Bad Wildbad, Germany (Main organiser)

Oct 2019 4D Epigenome meeting, Palazzo Cavalli-Franchetti, Venice (Invited speaker)

Dec 2019 Protein-DNA Interactions: From Biophysics to Cancer Biology, Rice University, Houston, TX (Invited speaker)

Jan 2020 POSTECH-APCTP Biophysics conference, POSTECH, Pohang, South Korea (Invited plenary speaker)

May 2020 XXIII Física Estadística (FisEs'20) conference, Zaragoza, Spain (Invited plenary speaker)

Jun 2020 Protein-DNA Interactions: from Biophysics to Cell Biology, Weizmann Institute of Science, Rehovot, Israel (Invited speaker)

Sep 2020 Dynamics in correlated systems: Chemical and Biological IIT Bombay, Mumbai, India (Invited speaker)

Sep 2020 13th Conference of the Society of Physicists of Macedonia - CSPM 2020, Ohrid, Macedonia (Invited plenary speaker)

Oct 2020 Venice meeting on Fluctuations in small complex systems V Istituto Veneto di Science, Lettere ed Arti, Palazzo Franchetti, Venezia, Italy (Co-organiser)

4 SEMINARS AND COLLOQUIA

1995 *University of Freiburg*, FRG

1997 *Universitat Autònoma de Barcelona*, Bellaterra (Cerdanyola del Vallès)

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