

Curriculum Vitae

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Personal

Name: Dr. rer. nat. Axel Gerhard Rossberg
Citizenship: Germany
Current Position: Senior Research Fellow
Work Address: Queen's University Belfast
School of Biological Sciences
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Education

January '98 Doktor der Naturwissenschaften (Ph.D., physics), "summa cum laude" (beyond best regular grade)
Dissertation Title: *The Amplitude Formalism for Pattern-Forming Systems with Spontaneously Broken Isotropy and some Applications*
10/1994 – 09/1998 Universität Bayreuth, doctoral student, Supervisor: L. Kramer
August '94 Master of Arts, Supervisor: J. Swift
10/1993 – 09/1994 University of Texas at Austin, 2 semesters, Major: Physics, Minor: Mathematics
August '92 Vordiplom (pre-diploma), "sehr gut" (best regular grade)
10/1990 – 09/1993 Universität Würzburg, 6 semesters, Major: Physics, Minor: Computer Science

Appointments

08/2010 – Senior Research Fellow at School of Biological Sciences, Queen's University Belfast, UK
08/2008 – 7/2010 Research Fellow at School of Biological Sciences, Queen's University Belfast, UK
04/2007 – 08/2008 Research Scholar at IIASA (International Institute for Applied Systems Analysis), Austria
04/2005 – 03/2006 Part-Time Lecturer at Sophia University, Tokyo, Japan
10/2003 – 03/2007 Visiting Associate Professor at Center of Excellence "Environmental Risk Management for Bio/Eco-Systems", Yokohama National University, Japan
04/2001 – 09/2003 Researcher at Center for Data Analysis and Modeling, Universität Freiburg, Germany
10/2000 – 03/2001 Visiting Scholar at Department of Philosophy, Columbia University, New York, NY, U.S.A.
10/1998 – 09/2000 Postdoctoral Researcher at Nonlinear Dynamics Group, Kyoto University, Kyoto, Japan
10/1996 – 09/1998 Research Assistant at Department of Physics, Universität Bayreuth, Germany
10/1995 – 09/1996 Teaching Assistant at Department of Physics, Universität Bayreuth, Germany

Teaching Experience

Under Graduate	10/2010 –	School of Biological Sciences, Queen's University Belfast, <i>Biochemical Methods, Experimental Design and Statistics</i> (lectures and practicals, in English)
Under Graduate	04/2005 – 03/2006	Faculty of Comparative Cultural Studies, Sophia University, Tokyo, <i>Environmental Issues I&II</i> (two full-semester lectures, in English)
Graduate	04/2004 – 03/2007	Graduate School of Environment and Information Sciences, Yokohama National University, <i>Basic Methods of Theoretical Ecology and their Application</i> (three full-semester lectures, in Japanese)
Graduate	10/2001 – 02/2002	Fakultät für Physik, Universität Freiburg, <i>Concepts of Nonlinear Dynamics</i> (full semester lecture, co-toughed with Jens Timmer, in German)
High-School	11/2001	Freiburg Seminar, City of Freiburg <i>The Four Capital Sins of Modeling</i> (in German)
Under Graduate	10/1995 – 09/1996	Department of Physics, University of Bayreuth, <i>Electrodynamics</i> (full semester problem-solving class, in German)

(Co-)Supervision and Tutoring

2009 –	PhD	Tak Fung (biodiversity effects of fishing)
2009 –	PhD	Jennifer Houle (biodiversity effects of fishing)
2005 – 2007	PhD	Hiroshi Serizawa (dynamics of algae blooms in lake ecosystems)
2005 – 2006	Bachelor	Kaori Yanagi (statistics of trophic interaction strength)
2004 – 2005	Bachelor	Takuo Yumura (analysis of food-web topology)
2004 – 2007	PhD	Takatoshi Enomoto (theory and experiments on bi-stability in ecosystems)
2002 – 2003	Diploma	Kilian Bartholomé (detection of synchronization from time series)
1997 – 1998	Diploma	Anke Lindner (theory of 3D pattern formation in liquid crystals)

Awards and Scholarships

1998 – 2000	Alexander von Humboldt Foundation: postdoctoral research fellowship
1998	City of Bayreuth: "Best dissertation of the year"
1994 – 1996	Deutsche Forschungsgemeinschaft: research fellowship
1993 – 1994	Studienstiftung des Deutschen Volkes (German National Merit Foundation): regular fellow

Editorial Work

2008 –	Associate Editor, <i>American Naturalist</i>
2007 –	Host of the <i>foodwebs</i> mailing list (http://foodwebs.info)
2007	Guest editor, Special Section on Current Food-Web Theory in <i>Ecological Complexity</i> 5(2), 2008 (together with Katsuhiko Yoshida)

Reviewing

Journals in Physical Sciences

Physical Review Letters
Europhysics Letters
Journal of Theoretical Physics
Physical Review E
Physica A
Physica D
Flow Measurement and Instrumentation
Mathematical Models of Natural Phenomena
International Journal of Bifurcations and Chaos

Journals in Life Sciences

PNAS
American Naturalist
Proceeding of the Royal Society B
Marine Ecology Progress Series
Journal of Theoretical Biology
Oikos
Ecology Letters
Ecological Complexity
Ecological Modelling
Global Ecology and Biogeography
Pest Management Science
Biological Conservation
Paleontological Research.

Society Memberships

British Ecological Society
Ecological Society of America
The American Society of Naturalists.

Other Responsibilities

2010 – Member, IUCN Commission on Ecosystem Management (CEM)
2009 – UK delegate to the International Council for the Exploration of the Sea (ICES)
2001 – 2003 Guest-speaker program at Center for Data Analysis and Modeling, Freiburg
1996 – 1998 Administration of computing facilities at Department for Theoretical Physics, U Bayreuth

Programming Experience

C, C++, FORTRAN, R, Mathematica, Matlab, Sage, AWK, Perl, Lisp, FOURTH, Assembler

Language Skills

German (native), English, Japanese, Portuguese, Italian

Publications

As of Jan 2011, 39 articles published in refereed journals, including contributions to *Physical Review Letter* (impact factor 7.3), *Proceedings of the Royal Society B* (4.9), *Ecology* (4.4), and *Journal of the Royal Society Interface* (4.2).

ISI number of citations: over 400; h-index: 12. See Academic Track Record for details.