

Curriculum Vitae

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Personal

Name: Dr. rer. nat. Axel Gerhard Rossberg
Place of Birth: Essen (Germany)
Citizenship: German
Current Position: Research Fellow
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Education

10/1990 – 09/1993 Universität Würzburg, 6 semesters, Major: Physics, Minor: Computer Science,
August '92 Vordiplom (pre-diploma), "sehr gut" (best regular grade),
10/1993 – 09/1994 University of Texas at Austin, 2 semesters, Major: Physics, Minor: Mathematics,
August '94 Master of Arts, Supervisor: J. Swift,
10/1994 – 09/1998 Universität Bayreuth, doctoral student, Supervisor: L. Kramer,
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.*

Appointments

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

Teaching Experience

Under Graduate	10/1995 – 09/1996	Department of Physics, University of Bayreuth, <i>Electrodynamics</i> (Problem Solving Classes, in German),
High-School	11/2001	Freiburg Seminar, City of Freiburg <i>The Four Capital Sins of Modeling</i> (in German),
Graduate	10/2001 – 02/2002	Fakultät für Physik, Universität Freiburg, <i>Concepts of Nonlinear Dynamics</i> (in German),
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> (in Japanese),
Under Graduate	04/2005 – 03/2006	Faculty of Comparative Cultural Studies, Sophia University, Tokyo, <i>Environmental Issues I&II</i> (in English).

(Co-)Supervision and Tutoring

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

Awards and Scholarships

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

Editorial Work

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

Reviewing

Journals in Physical Sciences

Physical Review 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
Journal of Theoretical Biology,
Oikos,
Ecology Letters,
Ecological Complexity,
Ecological Modelling,
Pest Management Science,
Biological Conservation,
Paleontological Research.

Other Responsibilities

2009 – UK delegate to the International Council for the Exploration of the Sea (ICES).

Programming Experience

C, C++, FORTRAN, R, Mathematica, Matlab, AWK, Perl, Lisp, FOURTH, Assembler.
Contributions to the X.org touchpad driver contained in all major Linux distributions.

Language Skills

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

Publications

As of Nov 11, 2009, 35 articles published in refereed journals, including highly ranked periodicals such as *Physical Review Letters* and *Ecology*. ISI number of citations: 344; h-index: 11. See Academic Track Record for details.