

CURRICULUM VITAE
of
ROLF JELTSCH
Professor Seminar for Applied Mathematics
ETH Zürich, Switzerland

Born 31 October 1945 in Zürich;
Married to Marianne Grauer 1970;
Children: Veronika 1972, Rita 1974, Urs 1978, Claudia 1983;

Diploma in mathematics 1969 at ETH Zürich;
Degree as a high school teacher in mathematics 1970 at ETH Zürich;
Ph.D. in mathematics 1972 at ETH Zürich;

Positions

1972-73 Killam postdoctoral fellow Dalhousie U, Canada;
1973-75 adj. ass. prof. University of California Los Angeles, UCLA, US;
1975-76 ass. prof. University of Kentucky, US;
1976-77 docent, Ruhr University in Bochum, Germany;
1977-79 associate prof. Ruhr University in Bochum, Germany;
1979-89 full prof. in Mathematics and Director of the Institute for Geometry
and Practical Mathematics of the University of Technology RWTH Aachen,
Germany;
1989-2011 full professor at ETH Zürich, Switzerland
1991-1993 Chair of the Department of Mathematics

Extended visits

1978 Stanford University, US, 6 month, fellowship of the Swiss National Science
Foundation
1978 Helsinki Univ. of Technology, Finland, 2 month, fellowship of the Swiss
National Science Foundation
1981 Helsinki Univ. of Technology, Finland, 3 weeks
1985 Helsinki Univ. of Technology, Finland, 1 month
1985 Stanford University, US, 1 month
1990 Helsinki Univ. of Technology, Finland, 2 month

1998-99 University of Queensland, Brisbane, Australia, 6 month
2004 The University of Auckland, Auckland, New Zealand, 2 month
2004-2005 University of Chile, Santiago de Chile, Chile, 2 month
2005 Escuela Politécnica Nacional, Quito, Ecuador, 1 month
2011 CMAF Centro de Matemática e Aplicações Fundamentais, University of Lisbon, Portugal, 6 month, research fellowship of the Fundação para a Ciência e a Tecnologia, Portugal
2011 Visiting Professor at the University of Southern Denmark, 1.5 month
2012 Visiting Professor at the University of Southern Denmark, 3 month
2013 Visiting Professor at the University of Southern Denmark, 1.5 month
2013 Hong Kong Baptist University, University Fellow, 4 month
2014 University of São Paulo in São Carlos, ICMC, 3 month
2014 Escuela Politécnica Nacional, Quito, 1 month

Honours

Fellow of the National Mathematical, Centre, Abuja, Nigeria, Meritorious Service Award, 27 July, 2000
Foreign member of the Finnish Academy of Science and Letters, Finland, 15 April 2002
Honorary degree of the North University of Baia Mare, Romania, 10 October 2002
Honorary degree of the University of Technology Helsinki, 2 April 2008
Honorary degree of the Vietnamese Academy of Science and Technology, 26 November 2010
HC Andersen Academy Guest Professor 2011 - 2012
Hong Kong Baptist University Fellowship 2013
Fellow of the Fundação de Amparo a Pesquisa do Estado de São Paulo for 3 month, 2014
Fellow of the Secretaría Nacional de Educación Superior, Ciencia Tecnología e Innovación, SENESCYT, of Ecuador for 5 month in 2014-15. Not accepted.
Special Visiting Researcher Fellowship under the Brazilian Scientific Mobility Program *Ciências sem Fronteiras* by CNPq for a total of 9 month in the years 2015 - 2017 at the University of São Paulo in São Carlos

Involvement in societies:

ICIAM International Council for Industrial and Applied Mathematics

- 2000- 2005 Representative of EMS, voting member
- 2000- 2007 Representative of SMG, non-voting member
- 2001- 2007 Congress Director of ICIAM 2007 held in Zürich, 16 - 20 July, 3200 participants
- 2005- 2007 President-Elect
- 2007- 2011 President
- 2011- 2013 Past-President

EMS European Mathematical Society

- 1994-2004 Council member
- 1994-1998 Member of the electronic publishing committee
- 1997-1998 Member of the executive committee
- 1998-2009 Member of the applied mathematics committee
- 1999-2002 President
- 2004-2006 Committee on meetings
- 2001-2002 President of the board of trustees of the European Mathematical Foundation
- 2002 - present Member of the board of trustees of the European Mathematical Foundation
- 2010 - present Delegate of the Individual Members of the EMS

GAMM Society for Applied Mathematics and Mechanics

- 1996-2001 Member of the Executive Board
- 2005-2007 President
- 2006-2008 Chair of the Richard-von-Mises Prize committee
- 2008-2010 Vicepresident
- 2008-2010 Chair of the election committee
- 2008-2010 Chair of the committee future
- 2011-2013 Member of the election committee

SMS Societe Mathematiques Suisse

- 1998-1999 Secretary
- 2000-2001 Vicepresident
- 2002-2003 President

2004 - present Advisory Board

Leonhard Euler Center (Swiss Pilot Center of the **E**uropean **C**ommunity of **F**low **T**urbulence and **C**ombustion ERCOFTAC)

1995-96 Vicepresident

1997-98 President

MACSI-net (European network on Mathematics Application, Computing and Simulation in Industry)

2000-2004 Member of the strategy board

IMU International Mathematical Union

1998 - present Member of the General Assembly representing Switzerland

2002-2006 Member of Committee for Electronic Information and Communication, DMathLib co-chair

Member of the Prize Committee for the 2010 Gauss Prize

Member of the panel Section 15, Numerical Analysis and Scientific Computing ICM2002 and ICM2014

2014 - present Member of the IMU-Circle

OECD Global Science Forum

2006 - 2008 Member of the steering committee for the project Workshops on 'Mathematics in Industry'

2006 - 2011 Representative of Switzerland in the activity concerning projects related to 'Mathematics in Industry'

ICMI - ICIAM Study 'Educational Interfaces between Mathematics and Industry'

2008 - 2013 Member of the International Program Committee

Organisation of major conferences:

Organization together with Prof. Ballmann of the 'Second International Conference on Hyperbolic Problems, Theory, numerical methods and applications', Aachen, March 14-18, 1988.

Organization of the 'Seventh International Conference on Hyperbolic Problems, Theory, numerical methods and applications', ETH Zürich, February 9-13, 1998.

Organization together with L. Kleiser and M. Gutknecht, Annual meeting of GAMM, ETH Zürich, February 12-15, 2001

Conference Chair, jointly with G. Strang (president SIAM) and P. Deuffhard (local organizer) of the first EMS-SIAM conference. Title: 'Applied Math-

ematics in a Changing World' Berlin, 2-6 September 2001

Conference Chair, jointly with M. Thera (president SMAI) and M. Waldschmidt (president SMF) of a EMS-SMAI-SMF conference. Title: 'Applied mathematics - Application of mathematics' Nice 10-13 February 2003

Congress Director of ICIAM 2007, Zurich, 16-20 July 2007.

Organization together with T. Roesgen and M. Gutknecht, Annual meeting of GAMM, ETH Zürich, 16-20 July 2007.

Research Interests: Numerical Analysis (from theoretical investigations to engineering applications,) parallel computing, computational sciences. Special field of interests are numerics of hyperbolic conservation laws with applications in Euler equations of gas dynamics, compressible Navier-Stokes including large Eddy Simulation (LES) and chemistry, shallow water equations, magneto-hydrodynamical equations (MHD). Large scale computational and engineering problems such as simulation of accelerator beams, climate modeling, optimizing three dimensional turbine blades, modeling circuit breakers, two and three phase flow in porous media.

Publications

42 Publications in refereed scientific Journals
43 Publications in Proceedings
10 Books edited
35 Articles in other none scientific Publications

Editorial Boards

Journal of Computational and Applied Mathematics: Associate Editor, 1981 - 2000.

Book series: Numerical Mathematics and Scientific Computation, Oxford University Press: Editor, 1995 - 2001.

Journal on Computing and Visualization in Science, Springer: Associate Editor, 1998 - 2011.

SIAM Computational Science and Engineering Book Series: Member of the Editorial Board, 2004 - 2009.

Proceedings A of the Royal Society : 2004 - 2009

Vietnam Journal of Mathematics, Vietnam Academy of Science and Technology & Vietnamese Mathematical Society: Editorial Board, since 2012

Teaching

Ph.D. students: 37

CSE Curriculum: Together with colleagues I have introduced in 1997 a new curriculum at ETH called: Computational Sciences and Engineering.

1997 - 2008 Head of Student Studies CSE

For more information: <http://www.rw.ethz.ch>.

Member of Advisory Boards

PSCI - Parallel and Scientific Computing Institute, Royal Institute of Technology, Stockholm and University of Uppsala, Sweden, 1999-2003

Banach Center, Warsaw, Poland, Chair of the Scientific Council 2002-2005

Simula Research Center, Lysaker, Norway, 2002-2005

Johann Radon Institute for Computational and Applied Mathematics (RICAM), Linz, Austria 2003 - 2014

CIAM Center for Industrial and Applied Mathematics, Royal Institute of Tech-

nology, Stockholm, Sweden, 2007 - 2012

CIM Centro International de Matemática, Scientific Council, 2009 - present

Scientific Advisory Board of the School of Science of Aalto University 2011-present

Advisory Board e-Science Centre, University of Southern Denmark 2013-present

Evaluations

Site visit of the Nigerian Mathematical Center in Abuja, 28 August - 2 September 1994. The visit was made for the Academy of Sciences for the Developing World, TWAS, to review the possibility to make NMC to a Center of Excellence. The visit was done jointly with Michiel Hazewinkel.

Site committee University of Hawaii, Manoa, 10 -12 October 2001. This visit was made for the National Science Foundation of US. Chair of the site visiting team.

Imperial College London, Review of Undergraduate Teaching, 27 February 2004

Stuttgart Computing Center, chair

6th FP Marie Curie Call FP6-2002-Mobility-1

6th FP NEST Scientific Panel for New and Emerging Science and Technology (NEST) individual assessments of proposals and panel member allways panel member the last one chair of panel

-perform individual assessments of proposals remotely (i.e. from your own place of work) in the period 20th November to 4th December 2003 (stage A), and 3rd to 17th May 2004 (stage B) and to join the NEST scientific panel meeting in Brussels on 12th to 14th January 2004 (stage A), and 2nd to 3rd June 2004 (stage B), who will be responsible for the final assessment of proposals. remotely (i.e. from your own place of work) in the period 20th November to 4th December 2003 (stage A), and 3rd to 17th May 2004 (stage B),

VSNU Evaluation of the Mathematics in the Netherlands, 24 -29 August 2003

Review panel of the Helmholtz Programme concerning *Scientific Computing* applications by Forschungszentrum Jülich (FZJ) and Forschungszentrum Karlsruhe (FZK) in Jülich, 5 May 2004

Modellierung Simulation am 26./27.10.06. Landesstiftung Baden-Württemberg, 2004 - 2006

Panel for Engineering Sciences of the Swedish Research Council for evaluating Linnaeus Grants, supporting strong research environments at Swedish Universities. 2007 - 2008

Programm 'High Performance Computing'. Landesstiftung Baden-Württemberg,

2009 - present

Team to evaluate MFO, Mathematisches Forschungsinstitut Oberwolfach. Leibniz Association, 2009

European Research Council, ERC Advanced Grant (Physical Sciences & Engineering) Chair of the Panel PE1 - Mathematical foundations: all areas of mathematics, pure and applied, plus mathematical foundations of computer science, mathematical physics and statistics. Years 2009, 2011, 2013

Panel member of Quality and Renewal 2011 research evaluation of Uppsala University, Uppsala, Sweden

Research Programs in Mathematics of the University of Antwerp: Quality Assessment 2004-2011, panel member

KTH 2012 Research Assessment Exercise (RAE2012), panel member

Zurich, Switzerland, January 2015