

Kari O. Rummukainen CURRICULUM VITAE

Personal information:

Full Name: Kari Olavi Rummukainen

Nationality: Finnish

Date of birth: January 14, 1962

Present Position:

Professor of theoretical physics, Department of Physics, University of Helsinki.

Education and training:

MSc in theoretical physics, September 1987, supervisor Docent Claus Montonen.

PhD in theoretical physics, September 1990, supervisor Professor Keijo Kajantie.

Docent in theoretical physics, University of Helsinki, January 1994.

Previous professional appointments:

- Professor, University of Oulu, 8/2003 – 7/2009 (on leave 8/2003 – 7/2006)
- Staff member, CERN Theory Division, 8/2003 – 7/2006
- Senior Lecturer, University of Helsinki, Finland, 1/2002 – 7/2003
- Assistant Professor, Nordita, 10/1997 – 8/2002
- European Union Research Fellow,
Bielefeld University, Germany, 10/1996 – 9/1997
- Postdoctoral scientist, Indiana University, 10/1993 – 9/1996
- Research Fellow, Theory Division, CERN, 10/1991 – 9/1993
- Research Scientist, Academy of Finland, 8/1990 – 9/1991
- Research Scientist, Research Institute for Theoretical Physics,
University of Helsinki, 10/1988 – 8/1990 (as a graduate student)

PhD thesis advisor

Previous PhD students: Ari Hietanen, University of Helsinki, PhD 4/2008.

Current students: Anne-Mari Mykkänen, Jarno Rantaharju (Univ. of Helsinki); Janne Kuokkanen, Kai Loo, Petri Mutka, Tomi Räihä and Juho Sarkamo, University of Oulu; Tuomas Karaviita, University of Jyväskylä

Scientific expert tasks

Faculty position evaluation board membership

- Spring 2007: member of the evaluation committee for lectureship position, University of Oulu, Finland.
- September – December 2004: member of the evaluation committee for 2 assistant professorship positions at NTNU Trondheim, Norway.

Reviewing and ranking of scientific grant applications:

- September 2008: review of research projects for the Research council of Norway
- 4 June 2008: Expert visitor on the committee meeting on establishing a computational science program for the Academy of Finland
- 14 March 2008: Member of the Academy of Finland physics task group discussing the state of the physics research in Finland
- October 2007: review of research projects for the Research Council of Norway
- May 2007: review of a research project for the ETH Zurich Research Commission
- October 2006: review of a research project for the Research Council of Norway
- March – May 2006: review of a research network project for the Centre for Advanced Study of the Norwegian Academy of Science and Letters
- October 2003: review of PPARC research grants.
- January 2003, Academy of Finland: member of the physical sciences review board.
- February 2001, Academy of Finland: ranking of the applications for senior researcher grants and postdoctoral position grants in the fields of particle and nuclear physics.
- March 2001, Netherlands Organization for Scientific Research (NWO): review of research group grants in the field of computational science.

Other review boards:

- August 2002 – May 2006: Member of the particle physics fellowship selection committee, NORDITA

International conference advisory board membership:

- Conference series “Strong and Electroweak Matter”, member of the international advisory board 1998–present

Editorial board memberships:

- Editor of the *Proceedings of the international conference “Strong and Electroweak Matter ’98”*, eds. K. Rummukainen, J. Ambjrn, P.H. Damgaard and K. Kainulainen. World Scientific, Singapore (1999)
- Editor of the *Proceedings of the international conference “Strong and Electroweak Matter ’04”*, eds. K.J.Eskola, K. Kainulainen, K. Kajantie and K. Rummukainen. World Scientific, Singapore (2005)

Doctoral thesis review

Asko Jokinen, University of Helsinki, December 2002.
 Heli Honkanen, University of Jyväskylä, December 2004.
 Tuomas Lappi, University of Helsinki, November 2004.
 Matti Järvinen, University of Helsinki, April 2007.
 Mikko Vepsäläinen, University of Helsinki, April 2007.

Aleksi Kurkela, University of Helsinki, May 2008.
 Touko Tahkokallio, University of Helsinki, May 2008.
 Jonna Koponen, University of Helsinki, February 2009.
 Matti Herrala, University of Jyväskylä, May 2009.
 Hannu Paukkunen, University of Jyväskylä, May 2009

Conference organisation

1. Chair, symposium “Hot non-perturbative particle physics”, Copenhagen, April 24–25, 1998.
2. Chair, conference “Strong and Electroweak Matter '98”, Copenhagen, December 2–5 1998.
3. Co-organizer of the PhD school “Nordic winter school on particle physics and cosmology”, Gausdal, Norway, January 2–8 1999.
4. Convener of the session “Non-perturbative physics” in the International Europhysics conference HEP99, Tampere, Finland, 15-21 July 1999.
5. Chair, symposium “Hot non-perturbative particle physics II”, Copenhagen, Oct. 15–16 1999.
6. Co-organizer of the 23rd Triangle Meeting, 18–22 June 2000, Copenhagen.
7. Chair, symposium “Particle physics at high temperatures”, Oct. 28 2000, Trondheim, Norway.
8. Main organizer of the PhD school “2nd Nordic winter school on particle physics and cosmology”, Gausdal, Norway, January 6–12 2001.
9. Co-organizer, meeting “Theoretical Particle Physics and Cosmology,” Copenhagen, Denmark, January 25–26 2002.
10. Main organizer of the PhD school “3rd winter school on particle physics and cosmology”, Gausdal, Norway, January 4–10 2003.
11. Chair, conference “Strong and Electroweak Matter 2004”, Helsinki, June 16–19 2004.
12. Convener of the session “Non-perturbative field theory”, HEPP2005, EPS international high-energy particle physics conference, Lisbon, Portugal 21–27 July 2005.
13. Co-organizer of the “15th Nordic meeting on intermediate and high-energy nuclear physics”, Grä ftavallen, Sweden, January 4–9 2005.
14. Chair, 20th Nordic particle physics “Spatind meeting”, Spaatind, Norway, January 2–7 2008.
15. Chair, “Workshop on hot and dense QCD”, Oulu, Finland, June 26-28, 2008.

Administrative tasks

- Vice department head, Department of Physics, University of Oulu, 11/2008–7/2009
- Head of the board for the development of the teaching program, Department of Physics, University of Oulu, 11/2008–7/2009
- Oulu Southern Institute, member of the steering board, 2007–2009
- Center of the Underground Physics, Pyhäsalmi, member of the steering board, 2006–2009
- Head of the theoretical physics unit, University of Oulu, 2007–2009

Major research grants

- Research project *Standard Model in extreme environments*, Academy of Finland, 2004–2006. Provides salary for 2 PhD students.
- Research project *Simulations of hot QCD*, Academy of Finland, 2007–2009. Provides salary for a Postdoc and for 2 PhD students.
- *International scientific computing resource grants*: DEISA Extreme Computing initiative 2007: HDM (hot and dense matter). DEISA Extreme Computing initiative 2009: TecLat (Technicolor on the lattice). These include substantial supercomputing time allocation.

Scientific networks and projects

1. Finnish-German researcher training program on particle physics and cosmology: PACO, 2009 – 2011
2. Nordforsk network *Particle physics and cosmology – two sides of one coin*, 2008 – 2011
3. NorFA project *Theoretical Particle Physics and Cosmology*, 2002 – 2006.
4. Nordic project “Hot non-perturbative particle physics”, 1998 – 2000, funded by NORDITA.
5. EU TMR research network “Electron Scattering Off Confined Partons” 1999 – 2002.
6. EU TMR research network “Finite temperature phase transitions in particle physics” December 1997 – March 2001.
7. NorFA (Nordic research foundation) project *Standard Model in Extreme Environments*, 1997 – 1999.

Membership in scientific societies

Finnish Physical Society, European Physical Society
Finnish Academy of Science and Letters

Prizes

Finnish Academy of Sciences and Letters: 2006 Väisälä Prize.