

March 6, 2013

CURRICULUM VITAE



Name: **Nieminen, Risto Matti**

Date and place of birth: May 14, 1948; Helsinki, Finland

Citizenship: Finnish

Marital status: Married, two children

Highest degree: Doctor of Science (Tech), Helsinki University of Technology, 1975

Present position: Distinguished Professor, Department of Applied Physics, Aalto University School of Science
Director of the COMP Center of Excellence in Computational Nanoscience
Director, National Graduate School in Materials Physics

Areas of specialization: Computational condensed-matter and materials physics; nanoscience and -technology; defects, surfaces and interfaces in materials; complex materials and multiscale modelling of their processing; high-performance computing and networking; numerical methods and computational modelling.

Languages: Finnish (native); Swedish (fluent); English (fluent).

Employment summary:

- 2010- Distinguished Aalto Professor, Aalto University, School of Science
- 1997-2008 Academy Professor, Academy of Finland and Helsinki University of Technology
- 1994- Professor, Helsinki University of Technology
- 2007-8 Director, NORDITA, Sweden
- 1993-6 Chairman, Department of Technical Physics, Helsinki University of Technology
- 1989-96 Scientific Director, Center for Scientific Computing, Finland
- 1987-93 Associate Professor, Helsinki University of Technology
- 1986-7 Visiting Professor, Cornell University, USA
- 1984-6 Chairman, Department of Physics, University of Jyväskylä
- 1984 Visiting Professor, Helsinki University of Technology
- 1982-83 Senior Research Fellowship, Academy of Finland
- 1979-80 Visiting Professor, Cornell University, USA
- 1978-86 Associate Professor, University of Jyväskylä
- 1978-86 Docent, Helsinki University of Technology
- 1978 Senior Research Fellow, Academy of Finland
- 1975-77 Post-doctoral Research Fellow, NORDITA, Denmark
- 1975-78 Senior Assistant, Helsinki University of Technology
- 1973-75 Research Fellow, Cavendish Laboratory, University of Cambridge, England
- 1972-73 Assistant, Helsinki University of Technology
- 1971 Research Assistant, Reactor Laboratory, Technical Research Centre of Finland
- 1970 Research Assistant, Low Temperature Laboratory, Helsinki University of Technology
- 1969 Operator, Finnish State Computer Centre
- 1966-67 Military service (Finnish Marines; rank: Lieutenant)

Honorary memberships and prizes

- Member, Finnish Academy of Sciences and Letters 1984- (Chairman of the Physics Section 1994-9). Executive Board Member 2008-2011.
- Member, European Academy of Sciences 2009-
- Member, Finnish Academy of Technology 1997- ; Executive Board Member 2010-.
- Magnus Ehrnrooth Physics Prize 1989.
- Fellow, American Physical Society 1995- .
- Fellow, Institute of Physics (UK) 2000- .
- Fellow, Finnish Physical Society 2011- .
- Commander, Order of Finland's Lion, 2011; Knight (First Class), Order of White Rose of Finland, 2002.
- University Publicists' Prize, 2003.
- Professor of the Year, 2004.
- Member, Science and Technology Policy Council of Finland, 2005-2008.
- Member, Millennium Prize Selection Committee, 2007- ; Chair, 2009-10.
- Outstanding Referee, American Physical Society, 2007.

Editorships in scientific journals

Past

- Member, Editorial Board, Journal of Physics F: Metal Phys. (IOP, United Kingdom) 1985-8 .
- Editor-in-Chief, Arkhimeses 1988-94.
- Editor-in-Chief, CSC News 1989-96.
- Editor-in-Chief, Computational Materials Science (North-Holland) 1992-2001.
- Member, Executive Editorial Board, Journal of Physics CM: Condensed Matter 2007-10.

Present

- Member, Editorial Board, Physica Scripta 1982- .
- Member, Editorial Board, Journal of Scientific Programming (Plenum, USA) 1991- .
- Editor, Springer Lecture Notes in Computational Science and Engineering 1996- .
- Member, Advisory Editorial Board, Materials Science Forum (Trans Tech Publications) 1996- .
- Member, Advisory Board, Algerian Journal of Advanced Materials, 1996- .
- Member, Editorial Board, Journal of Computational Methods in Sciences and Engineering (JCMSE), 2001- .
- Member, Editorial Board, Journal of Computational and Theoretical Nanoscience (American Scientific Publishers) 2003- .
- Member, Editorial Board, International Journal of Computational Materials Science and Engineering (Imperial College Press, UK) 2011-.
- Member, Advisory Editorial Board, European Journal for Young Scientists and Engineers (LUMA, Finland) 2012-

Memberships in scientific and administrative organisations

General

- Member, Governing Board of the Finnish Cultural Foundation, 1994- (Executive Council, 1999-2003); Chairman 2006-2012.
- Member, Information Technology Board, Helsinki University of Technology 1997-2005.
- Member, EUROSCIENCE, 1998- .
- Member, Governing Board of Osk.Huttunen Foundation, 2000- ; Chairman 2006-.
- Chairman, National Strategy Group for Grid Infrastructure, 2005-2006 .
- Member, National Task Force for Infrastructure Planning, 2006-2007.
- Member, National Strategy Group for Computational Sciences, 2006-2007.
- Member of the Board of Instrumentarium Science Foundation 2007-.
- Member, National Committee for Public Information, 2006 -; Chairman, 2009- .
- Member, Board of the Innovation Foundation, 2005 -; Chairman 2011-.
- Member, Millennium Prize Selection Committee, 2007-. Chairman 2008-2010.

- Member, Board of National Archives, 2008-2012.

Physical Sciences (current)

- Member, International Advisory Board, Center for Computational Materials Science, Vienna, Austria, 1999- .
- Member, Scientific Advisory Board (*Fachbeirat*), Fritz Haber Institute, Berlin, Germany 2004- .
- Member, Steering Committee, Thomas Young Centre (London Centre for Theory and Simulation of Materials), London, UK 2006-.
- Member, International Scientific Committee for *M4Nano*, Spain, 2006-.
- Member, International Advisory Board, Center for Atomic-Scale Materials Design (CAMD), Danish Technical University, Lyngby, Denmark 2007- .
- Member, International Advisory Committee, European Theoretical Spectroscopy Facility (ETSF), 2008-.
- Member, Steering Committee, European Science Foundation Programme (ESF) INTELBIOMAT, 2008-.
- Member, International Advisory Committee, CECAM-MM1P.de, 2009 –
- Member, Materials Science and Engineering Committee (MatSEEC), European Science Foundation 2009-.
- Member, National Committee on Theoretical and Applied Mechanics, 1995- .
- Member, Board of Directors, Helsinki Institute of Physics, 2010- .
- Member, Psi-k Network and Board of Trustees 1994-; Chairman 2012-.
- Member, Scientific Advisory Board, Accelrys Ltd, 2011- .

Physical Sciences (past)

- Member, Board of Directors, NORDITA (Copenhagen, Denmark), 1990-6 (Chairman 1993-6).
- Chairman, NORDITA Condensed Matter Physics Committee, 1996-1999; Member, 2000-2003.
- Scientific Secretary, NORDITA Evaluation Panel 2004.
- Member, CERN Council, Committee of the Council, and Finance Committee, 1996-2003.
- Member, IUPAP Commission on Structure and Dynamics of Condensed Matter, 1993-6.
- Member, IUPAP Commission on Computational Physics, 1996-2005 (Secretary 1999-2002, Vice-chairman 2002-2005).
- Member, Management Board, EU Human Capital and Mobility (HCM) Network on *ab initio* Simulation of Complex Materials Processes, 1995-7.
- Member, Management Board, EU Training and Mobility of Researchers (TMR) Network on Electronic Structure Calculations of Materials Properties and Processes for Industry and Basic Research, 1998-2003 .
- Member, Steering Committee, European Science Foundation (ESF) Programme on Electronic Structure Calculations Elucidating the Complex Atomistic Behaviour of Solids and Surfaces, 1998-2007 .
- Member, Management Committee, COST Program on Simulation of Physical Phenomena in Technological Applications, 1997-2001.
- Member, Management Committee, COST Program on Multiscale Materials Simulation, 2006-2010.
- Member, International Scientific Committee for Materials Research, Spanish Scientific Research Council (CSIC), 2001-2005.
- Member, Scientific Advisory Committee of the NANOMAT Programme of the Norwegian Research Council, 2003-2005.
- Member, IUPAP Working Group on Nanosciences, 2006-2009.

- Member, Council of the European Physical Society, 1991-4.
- Member, Board of the Computational Physics Group of European Physical Society, 1991-6.
- Member, IUVSTA Delegation in Surface Science, 1986-94.
- Member, International Committee for Atomic Collisions in Solids (ICACS), 1999-2004.
- Member, International Advisory Committee on Positron Annihilation, 2000-2003 .
- Member, Board of Delegates, European Materials Research Society, 2002-2008 .
- Member, Board of Directors, Finnish Physical Society, 1981-92.
- Vice-president, Finnish Physical Society, 1985-8.
- President, Finnish Physical Society, 1989-91.
- Member, Board of Trustees, Research Center for Theoretical Physics at the University of Helsinki, 1983-6.
- Member, Board of Fysiikan Kustannus Oy, 1990-2000.

- Member, Board of Directors, Institute of Particle Technology at Helsinki University of Technology, 1993-5.
- Member, Board of Directors, Center for New Materials, Helsinki University of Technology, 2002- ; Chairman 2002-2005.

- Member, European Physical Society; Materials Research Society; Finnish Engineering Society.

High-performance computing and networking

- Member, Scientific Board, Center for Scientific Computing, 1989-96.
- Advisory Member, Board of Directors for Center for Scientific Computing, 1989-96.
- Member, Scientific Committee, Edinburgh Parallel Computing Centre, 1993-6.
- Member, Board of Directors, Helsinki University of Technology Computing Center, 1993-7.
- Member, Board of Directors, Center for Scientific Computing, 1997-8.
- Member, Board of Directors, Otaverkko Ltd., 1997-8.
- Member, Board of Directors, Swedish National Graduate School in Scientific Computing 1999- .
- Senior Scientific Advisor, Center for Scientific Computing, 2002-2004 .
- Chairman, Tugnregnekommiteen, Norway , 2003-2004.
- Member, Steering Committee for the Nordic Data Grid Facility, 2003-2005.
- Member, Scientific Advisory Board of eVITA, Norway, 2006-2008.
- Member, Scientific Steering Committee, European PRACE Consortium for High Performance Computing 2010-

Memberships in organizing and advisory committees for international conferences

1. Secretary, Organizing Committee for the 3rd *International Conference on Positron Annihilation (ICPA-3)* (Espoo, Finland 1973).
2. Organizing and Program Committees for the *Nordic Conference on Surface Science* (Tampere, Finland 1982).
3. Organizing and Program Committee for the *SCANDEM Electron Microscopy Conference* (Jyväskylä, Finland 1982).
4. Organizing Committee for the *Nordic Conference on Molecular Physics* (Espoo, Finland 1983).
5. Organizing Committee for the 2nd *International Workshop on Slow Positrons in Surface Science* (Pajulahti, Finland 1984).
6. International Advisory Committee for the *European Conference on Positron Defect Studies* (Wernigerode, DDR, 1987).
7. Organizing Committee for the *European Physical Society General Conference EPS-7* (Helsinki, Finland 1987).
8. Organizing Committee for the 5th *International Conference on the Recent Progress in Many-Body Theories* (Oulu, Finland 1987).
9. Chairman, Organising Committee for the *International Workshop on Many-Atom Interactions in Solids* (Pajulahti, Finland 1989).
10. International Advisory Committee for *Computer Aided Innovation of New Materials CAMSE '90* (Tokyo, Japan 1990).
11. Chairman, CSC Symposium on *Monte Carlo Methods in Statistical Physics* (Espoo, Finland 1989)
12. International Advisory Committee for *IV Nordic Symposium on Computer Simulations in Natural Science* (Sandefjord, Norway 1990).
13. Chairman, *Nordic Symposium on Molecular Dynamics* (Espoo, Finland 1990).
14. International Advisory Committee for *Nuclear and Atomic Clusters* (Turku, Finland 1991).
15. Chairman, CSC Workshop on *Numerical Solution of Partial Differential Equations* (Espoo, Finland 1991).
16. Chairman, *International Symposium on Cellular Automata* (Espoo, Finland 1991).
17. Chairman, CSC Workshop on *Parallel Computing* (Espoo, Finland 1991).
18. International Advisory Committee for the *Joint Nordic Spring Meeting in Physics* (Nyborg, Denmark 1992).
19. Organizing Committee for *XXV Physics Olympiad* (Helsinki, Finland 1992).
20. Chairman, Organizing Committee for *Nordic Research Course in Simulation of Matter* (Espoo, Finland 1991)
21. International Advisory Committee for *Computer Aided Innovation of New Materials CAMSE '92* (Yokohama, Japan 1992).
22. International Advisory Committee for *European Research Conferences on Electronic Structure of Materials* (1991-).
23. International Advisory Committee for the *International Symposium on Electronic Structure of Metals* (Gaussig, Germany 1992).
24. International Chairman, the *Fifth International Workshop on Slow Positron Beams* (Texas, USA 1992).
25. International Scientific Committee for the *International Conference on Materials Science and Computational Methods IMMS-4* (Oran, Algeria 1993).
26. International Program Committee, *Conference on Computer-Aided Engineering Education* (Bucharest, Romania 1993).
27. Chairman, Organising Committee for *Computer Aided Innovation of New Materials CAMSE '93* (Tokyo, Japan 1993).

28. Chairman, Organising Committee for the 7th Nordic Symposium on Computer Simulation (Espoo, Finland 1993).
29. Vice-chairman, European Research Conference on Electronic Structure of Solids (Thessaloniki, Greece 1993).
30. Chairman, European Research Conference on Electronic Structure of Solids (Gausdal, Norway 1994).
31. International Advisory Committee, Physics Computing '94 (Lugano, Switzerland 1994).
32. International Scientific Committee for the International Conference on Materials Science and Computational Methods IMMS-5 (Oran, Algeria 1995).
33. Program Committee, Annual Conference for the Finnish Chemical Society (Helsinki, Finland 1995).
34. International Advisory Committee for the 17th Nordic Semiconductor Meeting (Trondheim, Norway 1996).
35. International Program Committee, International Conference on Modeling and Simulation in Metallurgical Engineering and Materials Science (Beijing, China 1996).
36. International Program Committee, 7th International Workshop on Slow Positron Beams (Unterägeri, Switzerland 1996).
37. International Program Committee, 10th Nordic Symposium in Computer Simulation (Tallinn, Estonia 1996).
38. International Advisory Committee, Physics Computing '96 (Cracow, Poland 1996).
39. International Organising Committee, 4th Nordic Conference on Surface Science (Trondheim, Norway 1997).
40. Co-chairman, European Research Conference on Particle-Solid Interactions (Donostia, Spain 1997).
41. International Advisory Committee, European Research Conference on Density Functional Methods for Surface Physics (Corfu, Greece 1997).
42. International Advisory Committee, European Research Conference on Electronic Structure of Solids (1997).
43. International Advisory Committee, 2nd NUMETE (Numerical Methods and Techniques) Conference (Kuala Lumpur, Malaysia 1997).
44. Scientific Advisory Committee, NURT-1997 (Havana, Cuba 1997).
45. Organising Committee, International Workshop on the Physics of Structurally Disordered Systems (Jyväskylä, Finland 1997).
46. International Advisory Committee, 8th International Workshop on Slow Positron Beams (Capetown, South Africa 1998).
47. International Advisory Committee for the 18th Nordic Semiconductor Meeting (Linköping, Sweden 1998).
48. International Scientific Committee, Euro-Mediterranean Congress on Condensed Matter (Nantes, France 1998).
49. International Advisory Committee, Nordic Workshop on Applied Parallel Computing in Large-Scale Scientific and Industrial Problems (Umeå, Sweden 1998).
50. International Advisory Board, E-MRS Symposium on Progress in Computational Materials Science (Strasbourg, France 1999).
51. Vice-chairman, European Research Conference on Particle-Solid Interactions: Dynamic Properties (San Sebastian, Spain 1999).
52. International Program Committee, \mathbb{E}_k -2000 Conference on Electronic Structure (Schwäbisch Gmünd, Germany 2000).
53. International Program Committee, the Second Conference on Numerical Analysis and Applications (NAA'2000) (Rousse, Bulgaria 2000).
54. Third European Conference on Silicon Carbide and Related Materials (Kloster Banz, Germany 2000).
55. International Program Committee, the 12th International Conference on Positron Annihilation (ICPA-12) (Münich, Germany 2000).
56. International Advisory Committee, the 6th International Conference on Materials Science and Computational Methods (IMMS-6) (M'Sila, Algeria 2000).
57. Program Committee, Conference on Extended Defects in Semiconductors (Sussex, UK 2000).
58. International Advisory Committee, Nordic Workshop on Applied Parallel Computing in Large-Scale Scientific and Industrial Problems (PARA-2000) (Bergen, Norway 2000).
59. International Programme Committee, the 19th International Conference on Atomic Collisions in Solids (ICACS-19) (Paris, France 2001).
60. Chairman, European Research Conference on Particle-Solid Interactions: Growth and Processing (San Sebastian, Spain 2001).
61. International Advisory Committee, Conference on Computational Physics (CCP 2001) (Jülich, Germany 2001).
62. International Program Committee, 9th International Workshop on Slow Positron Beams and Their Applications (SLOPOS-9) (Dresden, Germany 2001).
63. Co-chairman, Symposium in Computational Materials Science Across Time and Length Scales, European Materials Research Society Spring Meeting (Strasbourg, France 2001).
64. International Advisory Committee for the 19th Nordic Semiconductor Meeting (Copenhagen, Denmark 2001).

65. Juror Panel, *International Young Physicists' Tournament* (Espoo, Finland 2001).
66. Organising Committee, *Nordic Workshop on Applied Parallel Computing in Large-Scale Scientific and Industrial Problems (PARA-2002)* (Espoo, Finland 2002).
67. International Programme Committee, *European Conference on Silicon Carbide and Related Materials* (Linköping, Sweden 2002).
68. International Advisory Committee, *International Conference on Defects in Semiconductors (ICDS)* (Aarhus, Denmark 2003)
69. Scientific Committee, *International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2003)* (Kastoria, Greece 2003).
70. Chairman, Program Committee, *20th Nordic Semiconductor Meeting* (Tampere, Finland 2003).
71. International Organising Committee, *European Congress on Computational Methods in Applied Sciences and Engineering (ECCOMAS-4)* (Jyväskylä, Finland 2004).
72. Co-chairman, *International Conference on Computer Simulation of Radiation Effects in Solids (COSIRES2004)* (Helsinki, Finland 2004).
73. Editorial Board, *The Seventh International Conference on Computational Structures Technology* (Lisbon, Portugal 2004).
74. Scientific Committee, *5th Nordic Conference in Surface Science* (Tampere, Finland 2004).
75. Program Committee, *5th European Conference on Silicon Carbide and Related Materials* (Bologna, Italy 2004).
76. Scientific Advisory Committee, *International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2004)* (Attica, Greece 2004).
77. International Programme Committee, *5th European Conference on Silicon Carbide and Related Materials* (Bologna, Italy 2004).
78. International Advisory Committee, *35th Polish Seminar on Positron Annihilation* (Turawa, Poland 2004).
79. General Chairman, *IK-2005* (Schwäbisch Gmünd, Germany 2005).
80. International Programme Committee, *International Conference on Defects in Semiconductors (ICDS-23)* (Awaji Island, Japan 2005).
81. Program Committee, *15th Workshop on Modelling and Simulation of Electron Devices* (Pisa, Italy 2005).
82. International Scientific Committee, *Third International Workshop on Density-Functional Theory Applied to Metals and Alloys* (Oran, Algeria 2007).
83. International Advisory Committee, *Conference on Computational Physics (CCP2007)* (Brussels, Belgium 2007).
84. Advisory Committee, *22nd Nordic Semiconductor Meeting* (Stockholm, Sweden 2007).
85. Executive Committee, *Nanotechnology in Northern Europe (NTNE 2007)* (Espoo, Finland 2007).
86. Scientific Advisory Board, *Theory Meets Industry: The Impact of Density-Functional Calculations on Materials Science* (Wien, Austria 2007).
87. Advisory Committee, *Joint Conference on Knowledge Management: Composite Materials, Nanotechnology and Alternative Energy, KMCM-2007* (Siegen, Germany 2007).
88. Organising Committee, *International Workshop Towards Reality in Nanoscale Structures* (Levi, Finland 2007)
89. Organising Committee, *Progress in Paper Physics* (Espoo, Finland 2008).
90. Organising Committee, *Helsinki Design Lab* (Helsinki, Finland 2008).
91. Organising Committee, *ESF Workshop on Irradiation Effects and Defects in Nano-scale Materials* (Levi, Finland 2008).
92. *13th International Conference on Quantum Chemistry* (Helsinki, Finland 2009).
93. *International Conference on Defects in Semiconductors (ICDS-25)* (St. Petersburg, Russia 2009).
94. Scientific Advisory Committee, *Nanotechnology in Europe (NTNE 2009)* (Berlin, Germany 2009).
95. International Advisory Board, *2nd International Conference From Nanoparticles and Nanomaterials to Nanodevices and Nanosystems (IC4N-2)* (Halkidiki, Greece 2009).
96. Chairman, *Computational Nnanoscience for Renewable Energy Solutions (CONARES)* (Espoo, Finland 2009).
97. Organising Committee, *International Workshop Towards Reality in Nanoscale Structures* (Levi, Finland 2009).
98. International Advisory Committee, *E-MRS Symposium in Computer Modelling in Nanoscience and Nanotechnology – Atomic-Scale Perspective* (Warsaw, Poland 2010).
99. Organising Committee, *International Workshop Towards Reality in Nanoscale Structures* (Levi, Finland 2010).
100. International Workshop on *Nano-Design, Technology and Computer Simulations* (Espoo, Finland 2011).
101. Organising Committee, *TEM-DFT Boat Workshop 2011* (Helsinki-Stockholm 2011).
102. International Advisory Committee, *Symposium on Clusters and Nanostructures* (Richmond, USA 2011).
103. Co-chair, *Carbon Nanotube Conference NT14* (Espoo, Finland 2013).

Refereeing and evaluation

General

Expert evaluation of the Swedish high-performance computing facilities and proposals (member of the International Evaluation Panel), 1994-5.

Evaluation of Parallel Dator Centrum (KTH, Sweden) 1996.

Member of the Physics Panel of the TMR Activity of the EU IV Framework Program, 1995-98.

Member of the Physics Panels of the EU V Framework Program, 1999-2002.

Evaluation of the Swedish National Graduate School in Scientific Computing, 1995-8.

Scientific evaluation of high-performance computing in Sweden, 1998, 2010.

Scientific evaluation of FWF Centers of Excellence and Graduate Schools in Austria, 1998, 2002, 2004, 2011.

Scientific evaluation of the National Research Program in Applied Mathematics in Sweden, 1999.

Expert evaluation of Norwegian high-performance computing proposals 1999.

Expert evaluation of the Materials Research Consortia proposals, Stiftelsen för Stragegisk Forskning, Sweden 1999-2000 (chairman of the evaluation panel).

Expert evaluation of the proposals for Future Scientific Leaders, Stiftelsen för Strategisk Forskning, Sweden, 2000-2001, 2007-2008, 2011.

Evaluation of the GROWTH Programme proposals, EU Research Directorate, 2000-2001.

Evaluation of the Estonian Centers of Excellence in Research, 2001, 2005.

Evaluation of Danish Initiatives in Advanced Scientific Computing, 2001.

Expert evaluation of the Materials Research Consortia proposals, Stiftelsen för Stragegisk Forskning, Sweden 2002-2003.

Evaluation of the NANOPHASE RTN, European Commission, 2002

Member of the Evaluation Panels and *Rapporteur*, EU VI Framework Program, 2003-2007.

Member, Evaluation Panel of the Research Programmes of the Helmholtz Association, Germany, 2003-.

Evaluation of the Senior Individual Grants, Stiftelsen för Strategisk Forskning, Sweden, 2003-2004.

Evaluation of the Helmholtz-Programme "Information Technology with Nanoelectronic Systems", Germany, 2004-2006.

Evaluation of the Danish Center for Scientific Computing (DCSC), Denmark 2004.

Evaluation of the Center of Excellence Programme (Starka forskningsmiljöer), Swedish Research Council 2004.

Evaluation Panel of NORDITA, Denmark 2004 (Academic secretary of the Panel).

Evaluation of NANOQUANTA RTN, European Commission, 2005, 2006.

Research Assessment Exercise, University of Oulu, Finland, 2007.

Research Assesment Exercise, University of Uppsala, Sweden, 2007.

Evaluation for the Physical Sciences and Engineering Panels of the *European Research Council*, 2007-.

Member of the Evaluation Panels and *Rapporteur*, EU VII Framework Program, 2008-.

Auditing of University of Jyväskylä, Jyväskylä, Finland 2008 - 2009.

Evaluation of Danish Technical University (Chair of Physics Panel), Denmark 2009.

Evaluation of Swedish National Infrastructure for Scientific Computing, Sweden 2010.

Evaluation of Science Foundation Ireland Centers of Excellence, Ireland 2010.

Evaluation for the Excellence Initiative, Wissenschaftsrat and Deutsche Forschungsgemeinschaft, Germany 2011-.

Research Assesment Excercise, University of Uppsala, Sweden 2011.

Journals

Article refereeing for Physical Review A, B, E; Physical Review Letters; Journal of Physics A: Mathematical and General; Journal of Physics B: Atomic and Molecular Physics; Journal of Physics C: Solid State Physics; Journal of Physics D: Applied Physics; Journal of Physics F: Metal Physics; Journal of Physics CM: Condensed Matter; Applied Physics; Solid State Communications; Physica Scripta; Physics Letters; International Journal of Quantum Chemistry; Reviews of Modern Physics; Surface Science; Chemical Physics; Journal of Chemical Physics; Chemical Physics Letters; Solid State Electronics; Semiconductor Science and Technology; Computational Materials Science; Journal de Physique; Proceedings of the Royal Society; Journal of Applied Physics; Faraday Transactions; Europhysics Letters; Journal of Measurement Science and Technology; Vacuum; Journal of Non-Crystalline Solids; Applied Physics Letters; Physica B, C; Journal of Materials Chemistry; Journal of Vacuum Science and Technology; Nanotechnology; Physica Status Solidi; Optics Communications; Journal of Electrochemical Society; European Journal of Physics B; Physical Chemistry- Chemical Physics; Nuclear Instruments and Methods B; Acta Materialia; Nature Materials; J. Molecular Catalysis; J. American Chemical Society.

Research proposals

Proposal refereeing for the U.S. National Science Foundation; Research Corporation; Science and Engineering Research Council of Canada; NATO Scientific Affairs Division; EC Science Program; Flemish Regional Government (Belgium); Naturvetenskapliga Forskningsrådet (Sweden); International Science Foundation (New York, USA); Israel Science Foundation; F.O.M. (The Netherlands); Teknikvetenskapliga Forskningsrådet (Sweden); Stiftelsen för strategisk grundforskning (Sweden); Academy of Finland; Foundation for Research Development (South Africa); Austrian Science Fund FWF (Austria); Council of Scientific and Industrial Research (India); Istituto Nazionale per la Fisica della Materia INFN (Italy); Humboldt Foundation (Germany); Physics and Astronomy Research Council (United Kingdom); European Science Foundation; Chilean Research Council; Nordisk Forskarakademi (NorFA); The Third World Network of Scientific Organisations; Netherlands Organisation for Scientific Research (NWO); Deutsche Forschungsgemeinschaft; Swiss National Science Foundation; Slovenian Science Foundation; Irish Centre for High-End Computing; Chilean National Commission for Science and Technology (CONICYT); Science Foundation Ireland; Department of Energy (USA); Georgian Science Foundation; Romanian Science Foundation; FNR Luxembourg.

Faculty positions

Expert evaluation of candidates for professorships and lectureships : Cornell University (USA), Linköping University (Sweden, four positions), Umeå University (Sweden, two positions), Chalmers University of Technology (Sweden, five positions), NORDITA (Denmark), Uppsala University (Sweden), Technical University of Norway (six positions), University of Cape Town (South Africa), University of Witwaterstrand (South Africa), Université de Montreal (Canada), University of Crete (Greece); Luleå University of Technology (Sweden); Max-Planck-Institutes (Germany, three positions); National University of Singapore (Singapore); Katholieke Universiteit Leuven (Belgium); Ruhr-Universität-Bochum (Germany); Lund University (Sweden, two positions); Institute of Science and Technology Austria (Austria); Qassim University (Kingdom of Saudi Arabia); University of Vienna (Austria), NTNU (Norway); Canadian Institute for Advanced Research (CIFAR); University of Tartu (Estonia), University of Oslo, University of Leoben (Austria).

Service on *appointment and tenure refereeing committees* for several foreign and domestic universities.

Theses

Ph.D. thesis opponent in the Universities of Helsinki (four times), Turku (twice), Oulu (twice) and Jyväskylä (twice); Tampere University of Technology; Chalmers University of Technology, Sweden (five times); Royal Institute of Technology, Sweden (twice); University of Linköping, Sweden (twice); EPFL, Switzerland; University of Hong Kong, China; Danish Technical University, Denmark; University of Exeter, UK; University of Lund (Sweden); Singapore National University (Singapore); University of Capetown (South Africa), Uppsala University (Sweden).

External examiner of licentiate and doctoral theses for several Finnish and foreign universities.

Graduate and postdoctoral supervision

Chairman of the National Graduate School in Materials Physics (210 post-graduate students) 1994-.

Ph.D. supervisions (year of graduation):

Matti Manninen (1978); Martti Puska (1984); Henrik Hansen (1985); Seppo Valkealahti (1987); Hannu Rajainmäki (1987); Kjeld Jensen (1987); Wei-yi Zhang (1988); Jari Laakkonen (1989); Lou Yongming (1990); Kari Laasonen (1991); Harri-Pekka Kaukonen (1992); Riikka Virkkunen (1993); Matti Alatalo (1994); Kimmo Koski (1996); Jari Järvinen (1996); Timo Korhonen (1996); Juha-Pekka Hovi (1996); Vilho Räisänen (1997); Tomi Mattila (1997); Sami Pöykkö (1998); Ari Harju (1999); Peter Råback (1999); Tero Siili (1999); Markus Kaukonen (1999); Marko Pesola (2000); Mikko Hakala (2001); Eira Seppälä (2001); Leena Torpo (2001); Erkki Hellén (2002); Jussi Enkovaara (2003); Tuomas Torsti (2003); Lauri Salminen (2003); Miguel Gosálvez (2003); Sami Siljamäki (2003); Henri Saarikoski (2003); Juha Lento (2003); Esa Räsänen (2004); Petri Lehtinen (2005); Paula Havu (2005); Meri Helle (2006); Hannes Raebiger (2006); Arto Hämäläinen (2006); Viljo Petäjä (2006); Sampsa Jaatinen (2007), Ivan Degtyarenko (2007), Markku Stenberg (2007), Ville Bergholm (2007), Jukka Huhtamäki (2008), Olli Pakarinen (2008), Lasse Laurson (2008), Katri Laaksonen (2009), Teemu Hynninen (2009), Lei Dong (2009), Matti Peltomäki (2009), Ville Pietilä (2010), Laura Koponen (2010), Eero Töölö (2010), Markus Miettinen (2010), Jani Särkkä (2011), Timo Vehviläinen (2012), Andris Gulans (2012); Tomi Ruokola (2012); Janne Blomqvist (2012), Pekko Kuoppanportti (2012), Javad Hashemi (2012), Riku Oja (2013), Jussi Leinonen (2013).

Present doctoral students:

Mikko Hakala, Riku Oja, Laura Oikkonen, Natalia Berseneva, Manana Koberidze, Mikko Ervasti, Topi Siro, Tuukka Hiltunen, Mari Ijäs, Andreas Uppstu, Samuli Hakala, Jelena Telenius, Philip Jones, Joonas Govenius.

Supervised 40 post-doctoral fellows at Helsinki University of Technology and University of Jyväskylä.
Supervised more than 120 M.Sc. theses at Helsinki University of Technology and University of Jyväskylä.

Other public service

University-Industry Collaborative Research Programs, University of Jyväskylä 1984-6.
OECD Commission on Information Technology, Paris, France 1992.
Information Strategy Commission for Education and Research, Ministry of Education 1994-5.
National Delegate, OECD Conference *Global Research Village*, Elsinore, Denmark 1996.
139. National Defence Course, 1996.
Information Society Forum, Finnish Government, 1996-1999.
EU-Japan Co-operation Conference on Education, Science and Technology, Tokyo 1997.
Organising Committee for the National Science Days 2003, 2005.
Chairman, United World Colleges National Committee in Finland, 2003 - .

Invited and plenary lectures at international conferences

1. International Symposium on *Electronic Structure of Metals* (Gaussig, GDR 1978).
2. Fifth International Conference on *Positron Annihilation* ICPA-5 (Sendai, Japan 1979).
3. *Low Temperature Physics* Winter School (Lammi, Finland 1979).
4. 2nd International Conference on *Muon Spin Rotation* (Vancouver, Canada 1980).
5. *Finnish Physical Society Annual Meeting* (Turku, Finland 1981).
6. *Nordic Solid State Physics Conference* (Copenhagen, Denmark 1981).
7. *International School of Physics "Enrico Fermi" LXVIII* (Varenna, Italy 1981).
8. First International *Slow Positron Workshop* (Brookhaven, USA 1981).
9. *Nordic Conference on Surface Science* (Tampere, Finland 1982).
10. Third International Conference on *Muon Spin Rotation* (Sendai, Japan 1983).
11. NORDITA Workshop on *Hydrogen in Metals* (Copenhagen, Denmark 1983).
12. NATO Advanced Research Workshop on *Positron Scattering in Gases* (Surrey, England 1983).
13. *International Physics Summer School* at Universidad Internacionales Menendez Pelayo (Santander, Spain 1983).
14. 16th Polish Seminar on *Positron Annihilation* (Piechowice, Poland 1983).
15. Second International Workshop on *Slow Positrons in Surface Science* (Pajulahti, Finland 1984).
16. Seventh International Conference on *Positron Annihilation* ICPA-7 (Delhi, India 1985).
17. International School of *Physical Problems in Microelectronics* (Varna, Bulgaria 1985).
18. NORDITA Workshop on *Dynamics of Atoms in Low Symmetry Situations* (Copenhagen, Denmark 1986).
19. International Workshop on the *Electronic Structure of Defects in Metals and Alloys* (Argonne, USA 1986).
20. International Workshop on *Positron Beam Techniques for Solid State and Surface Studies* (Norwich, UK 1986).
21. Seventh *General Conference of the Condensed Matter Division* of European Physical Society (Pisa, Italy 1987).
22. International Symposium on *Positron Annihilation Studies of Fluids* (Arlington, USA 1987).
23. Seventh *European Physical Society General Conference "Trends in Physics"* (Helsinki, Finland 1987).
24. *Scanning Electron Microscopy* Conference (St.Louis, USA 1988).
25. *Finnish Physical Society Annual Meeting* (Jyväskylä, Finland 1988).
26. Eighth International Conference on *Positron Annihilation* ICPA-8 (Gent, Belgium 1988).
27. International Symposium on *Highlights of Condensed Matter Physics* (Trieste, Italy 1989).
28. Fourth *Nordic Symposium on Computer Simulation in Natural Sciences* (Lahti, Finland 1989).
29. International Workshop on *Kinetics of Nonhomogeneous Processes* (Banff, Canada 1989).
30. *Nordic Conference on Supercomputing* (Oslo, Norway 1990).
31. NATO Advanced Study Institute on *Interaction of Charged Particles with Solids and Surfaces* (Alicante, Spain 1990).
32. Fourth International Workshop on *Positron Beam Studies of Solids and Surfaces* (London, Ontario, Canada 1990).
33. International Conference on *Computer Applications to Materials Science and Engineering* CAMSE-90 (Tokyo, Japan 1990).
34. NATO Advanced Research Workshop on *Fundamental Aspects of Inert Gases in Solids* (Bonas, France 1990).

35. *Annual Meeting of the Finnish Mathematical Society* (Joensuu, Finland 1991).
36. International Conference of *Fermiology of High- T_c Superconductors* (Argonne, USA 1991).
37. *International Conference on Simulation and Supercomputing* (Madrid, Spain 1991).
38. *Supercomputing '91* (Albuquerque, New Mexico 1991).
39. International Symposium on *Collective Nuclear Magnetic Effects in Metals* (Sjökulla, Finland 1992)
40. Joint Nordic Spring Meeting in *Condensed Matter Physics* (Nyborg, Denmark, 1992).
41. Royal Danish Academy of Sciences *Jubilee Symposium on Sputtering* (Copenhagen, Denmark 1992).
42. International Conference on *Computer Applications to Materials Science and Engineering* CAMSE-92 (Yokohama, Japan 1992).
43. International Workshop on *Nuclear Methods in Solid State Sciences* (Grenoble, France 1992).
44. Research Workshop in *Condensed Matter, Atomic and Molecular Physics* (International Center for Science and High Technology, Trieste, Italy 1992).
45. Fifth International Workshop on *Slow Positrons* (Jackson Hole, Wyoming , USA 1992).
46. International Symposium on *Local Order in Condensed Matter Physics* (Orissa, India 1992).
47. Seventh International Workshop on *Computational Condensed Matter Physics* (Trieste, Italy, 1993).
48. International Conference on *Materials Science and Computational Methods* (Oran, Alger 1993).
49. *International School of Physics "Enrico Fermi" CXXV* (Varenna, Italy 1993).
50. International Union of Materials Research Societies (IUMRS) and the International Conference on *Advanced Materials* (ICAM-93) (Tokyo, Japan 1993).
51. Third International Symposium on *Advanced Materials* (Islamabad, Pakistan 1993).
52. International Conference on Models for the *Atomistic Simulation of Large Systems* (Bad Honnef, Germany 1993).
53. *Industrial Physics Days*, Tampere University of Technology (Tampere, Finland 1993).
54. The Second International Conference on *Computer Simulation of Radiation Effects in Solids* COSIRES-2 (Santa Barbara, USA 1994).
55. The Tenth International Conference on *Positron Annihilation* ICPA-10 (Beijing, China 1994).
56. International Symposium on *Vortices, Interfaces and Mesoscopic Phenomena in Quantum Systems* (Jyväskylä, Finland 1994).
57. Seminar in *Condensed Matter Physics and Chemistry* (Rondablikk, Norway 1994).
58. Workshop on *Parallel Algorithms for Large Systems* (Taormina, Italy 1994).
59. EUDYN'94: *Computational Techniques for Dynamical Processes in Condensed Matter* (Berlin, Germany 1994)
60. *March Meeting of the American Physical Society* (San Jose, California, USA 1995).
61. International Workshop on *Atomically Controlled Surface Processes* (Tsukuba, Japan 1995).
62. Workshop on *Ion Beam Processing of Surfaces* (Stockholm, Sweden 1995).
63. International Conference on *Defects in Condensed Media* (Kalpakkam, India 1995).
64. International Symposium on *Contemporary Concepts in Condensed Matter Physics* (Gothenburg, Sweden 1995).
65. International Conference on *Advanced Computer Simulation of Materials* (Daresbury, England 1995).
66. International Conference on *Modeling and Simulation in Metallurgical Engineering and Materials Science* (Beijing, China 1996).
67. 17th *Nordic Semiconductor Meeting* (Trondheim, Norway 1996).
68. 7th International Workshop on *Slow Positrons* SLOPOS-7 (Unterägeri, Switzerland 1996).
69. 18th International Seminar on *Surface Physics* (Polanica Zdroj, Poland 1996).
70. μ_k *Network Conference on Electronic Structure* (Swäbisch Gmund, Germany 1996).
71. International Conference on *Frontiers in Materials Modelling and Design* (Kalpakkam, India 1996).
72. NATO Advanced Study Institute "*Problem Solving in Computational Molecular Science*" (Bad Windsheim, Germany 1996).
73. International Conference on *Advanced Materials* (ICAM), E-MRS (Strasbourg, France 1997).
74. International Conference on *Metallurgical Coatings and Thin Films* ICMCTF-97 (San Diego, USA 1997).
75. International Summer School on *Positron Physics* (Kansas City, USA 1997).
76. International Seminar on *Applications of High-Performance Computing*, National Supercomputer Center (Linköping, Sweden 1997).
77. European Research Conference on *Particle-Solid Interactions: Strong Perturbations* (San Sebastian, Spain 1997).
78. Third International ARCADE Meeting (Edinburgh, United Kingdom 1997).
79. International Meeting on *Technisch-wissenschaftliches Hochleistungsrechnen* (Oberwolfach, Germany 1997).
80. ESF-TMR Workshop on *Electronic Structure Calculations for Industry and Basic Science* (Vienna, Austria 1998).

81. CECAM Workshop on *Physical Properties and Structural Parameters for Inorganic Compounds* (Lyon, France 1998)
82. Eighth International Workshop on *Slow Positron Beam Techniques for Solids and Surfaces* (Cape Town, South Africa 1998).
83. International Workshop on *Artificial Atoms* (ECT*, Trento, Italy 1999).
84. International Workshop on *Order, Disorder and Phase Transitions in Solids* (Vienna, Austria 1999).
85. International Kohn Symposium "Manifestation of Applications of Density-Functional Theory in Physics and Chemistry in Northern Europe" (Gothenburg, Sweden 1999).
86. EURESCO Conference Donostia Encounters in *Particle-Solid Interactions* (San Sebastian, Spain 1999).
87. *Computers in Chemistry*, Annual Chemical Days (Helsinki, Finland 1999).
88. Methods Meet: *Physics and Topical Issues of Society* (NORDITA, Copenhagen, Denmark 1999).
89. Seminar on Basic Science, Research Institutes, Universities and Science Parks (Otaniemi, Finland 1999).
90. International Conference on *Electronic and Atomic Structure* (Tamkang, Taiwan 1999).
91. 13th International Workshop on *Recent Developments in Computer Simulation Studies in Condensed Matter Physics* (Athens, Georgia, USA 2000).
92. International Conference on *Diffusion in Materials (DIMAT 2000)* (Paris, France 2000).
93. International Symposium on Graduate Education in a Changing European Society (Jyväskylä, Finland 2000).
94. Polish-Finnish Conference on *Nitride Semiconductors* (Espoo, Finland 2000).
95. *National Science Days 2001* (Helsinki, Finland 2001).
96. International Conference on *Doping Issues in Wide-Bandgap Semiconductors* (Exeter, UK 2001).
97. Nordic Summer School on *Trends in Industrial Catalysis* (Espoo, Finland 2001).
98. Nordic Summer School in *Computational Physics* (Linköping, Sweden 2001).
99. 11th International Summer School in Natural Sciences (Jyväskylä, Finland 2001).
100. International Winter School on Theoretical Chemistry: *Condensed Phase Dynamics* (Helsinki, Finland 2001).
101. International Symposium on *Current Trends in Semiconductor Physics and Optoelectronic Technologies* (Tampere, Finland 2001)
102. *Total Energy Methods in Computational Condensed Matter*, International Workshop (Tenerife, Spain 2002).
103. *Computing on the GRID*, International Workshop (Espoo, Finland 2002).
104. International Symposium on *Novel Materials: From Clusters to Nanostructures* (Jekyll Island, Georgia, USA 2002).
105. International Conference on *Applied Parallel Computing (PARA '02)* (Espoo, Finland 2002).
106. Symposium on *Atomic-Scale Materials Design*, European Materials Research Society E-MRS (Strasbourg, France 2002).
107. Inaugural Symposium of the Danish Center for Scientific Computing (Aarhus, Denmark 2002).
108. Programme Conference for *Materials Science Research* (Lund, Sweden 2003).
109. International Conference on *Metallurgical Coatings and Thin Films ICMCTF-03* (San Diego, USA, 2003).
110. International Symposium on *Clusters and Nano-Assemblies: Physical and Biological Systems* (Richmond, Va., USA, 2003).
111. International Workshop on *Electronic Structure of Condensed Matter II* (Ringberg, Germany 2003).
112. International Workshop on *Nano-scale Materials: from Science to Technology* (Puri, India 2004).
113. Third International Conference on *Computational Modeling and Simulation of Materials* (Acireale, Italy 2004).
114. International Conference *Electronic Structure Simulations of Nanostructures* ESSN-2004 (Jyväskylä, Finland 2004)
115. Euro-CASE Workshop: *Science Generation* (Stockholm, Sweden 2004).
116. International Workshop in *Time-Dependent Density Functional Theory: Prospects and Applications*, (Benasque, Spain 2004).
117. International Workshop *MAX IV: Our Future Light Source* (Lund, Sweden 2004).
118. 7th *Asian Workshop in Electronic Structure Calculations* (Tamkang, Taiwan 2004).
119. *Kickoff Meeting of the KTH Center for Computational Science and Engineering* (Stockholm, Sweden 2004).
120. *National Science Forum* (Helsinki, Finland 2005).
121. International Conference in *Advances in Computational Many-Body Physics* (Banff, Canada 2005).
122. Workshop in *Computational Problems in Physics* (Helsinki, Finland 2005).
123. *NANOMAT-Birkeland Conference* (Trondheim, Norway 2005).
124. *PacifiChem 2005* (Hawaii, USA 2005).
125. International Workshop on *High-Performance Oxides* (Washington DC, USA, 2005).
126. *Computational Science Crossing the Disciplines* (Espoo, Finland 2006).
127. *E-MRS Symposium on High-k Dielectrics*, Nice, France (2006).
128. CECAM- Σ_k Workshop on *Simulations of Novel Carbon Materials* (Lyon, France 2006).
129. *Specialist Meeting on Amorphous Carbon* (Crete, Greece 2006).

130. E_k - NANOQUANTA Workshop on *Time-Dependent Density Functional Theory* (Benasque, Spain 2006).
131. International Workshop on *Clusters – A Bridge Across Disciplines* (Jekyll Island, USA 2006).
132. *Forum on Physics and Society* (Graz, Austria 2006).
133. *Fourth International Congress on Materials Science and Technology* (Tlemcen, Algeria 2006).
134. *Annual Meeting of the Computer Science Society* (Helsinki, Finland 2006).
135. *International Workshop on Multiscale Modelling of Extended Defects and Phase Transformations at Materials Interfaces* (Wroclaw, Poland 2006).
136. *Trends in Nanotechnology (TNT2006)* (Grenoble, France 2006).
137. *e-Infrastructure Reflection Group (e-IRG)* (Espoo, Finland 2006).
138. *Progress in Anisotropic Wet Chemical Etching* (Kittilä, Finland 2006).
139. *Millenium Youth Forum* (Vantaa, Finland 2006).
140. *International Conference on Materials for Advanced Technology (ICMAT)* (Singapore 2007).
141. *eScience Winter Conference* (Geilo, Norway 2007).
142. *Sino-Finnish Workshop in Computational Nanoscience* (Shanghai, China 2007).
143. *Inaugural Symposium of Computer Assisted Materials Design (CAMD)* (Copenhagen, Denmark 2007).
144. *Finnish Supercomputing Days* (Espoo, Finland 2007).
145. *ChinaNano- International Conference on Nanotechnology* (Beijing, China 2007).
146. *Forum on Open Access: National Committee for Public Information* (Helsinki, Finland 2007).
147. *Aminoff Symposium on the Science and Applications of Carbon Nanotubes* (Stockholm, Sweden 2007).
148. *Plenary Meeting of the EU Science and Technology Policy Councils* (Berlin, Germany 2007).
149. *Development of Nanotechnologies and Nanomaterials*, Russian-Finnish Scientific Conference (Helsinki, Finland 2007).
150. *Millennium Youth Forum* (Salo, Finland 2007).
151. *Millennium New Materials Seminar* (Mikkeli, Finland 2007).
152. *Modern Concepts for Creating and Analyzing Surfaces* (Girona, Spain 2008).
153. *IC4N-2008* (Halkidiki, Greece 2008).
154. *Multiscale Modelling of Materials* (Brno, Czech Republic 2008).
155. *Time-dependent Density Functional Theory: Prospects and Applications* (Benasque, Spain 2008).
156. *Technology Trends* (Espoo, Finland 2008).
157. *International Conference on Computational Magnetism and Spintronics* (Dresden, Germany 2008).
158. *Conference on Nordic Infrastructures* (Stockholm, Sweden 2008).
159. *European Science Foundation Science Policy Conference* (Stockholm, Sweden 2008).
160. *Tekes Workshop on Modelling and Simulation in Finland and USA* (Helsinki, Finland 2009).
161. *5th International Conference on Materials for Advanced Technologies* (Singapore 2009).
162. *1st Nordic Graphene Workshop* (Uppsala, Sweden 2009).
163. *Quantum Theory of Solids (QTS-5)* (Aarhus, Denmark 2009).
164. *Modeling of Carbon and Inorganic Nanotubes and Nanostructures* (CECAM, Lausanne, Switzerland 2009).
165. *Theory, Modelling and Computational Methods for Semiconductor Materials and Nanostructures* (York, UK 2010).
166. *Modelling and Simulation (MASI) Closing Seminar* (Helsinki, Finland 2010).
167. *Computational Science Programme Opening Seminar* (Helsinki, Finland 2010).
168. *Nobel Symposium on Graphene* (Saltsjöbaden, Sweden 2010).
169. *ICTP Spring College on Computational Nanoscience* (Trieste, Italy 2010).
170. *PARA2010 Conference of High-Performance Computing* (Reykjavik, Iceland 2010).
171. *IRCSET Colloquium on Doctoral Training* (Dublin, Ireland 2010).
172. *Festsymposium Prof. Dr. Jürgen Hafner* (Vienna, Austria 2010).
173. *Progress and Future Challenges in Computational Materials Science* (Bremen, Germany 2011).
174. *Kickoff Meeting of MATTER Network of Excellence* (Linköping, Sweden 2011).
175. *MRS Spring Meeting: Computational Semiconductor Materials Science* (San Francisco, USA 2011).
176. *Idea Festival on Climate Change*, University of Oslo (Oslo, Norway 2011).
177. *XXII Congress of the International Union of Crystallography* (Madrid, Spain 2011).
178. *Science in Society Forum* (Helsinki, Finland 2011).
179. *International Symposium on Clusters and Nanostructures (ISCAN)* (Richmond, Va., USA 2011).
180. *Chalmers e-Science Initiative Seminar* (Gothenburg, Sweden 2011).
181. *Technology Days* (Espoo, Finland 2012).
182. *MAGFUM: Magneto-Mechanical Properties of Complex Functional Materials* (Turku, Finland 2012).
183. *EICOON 2012: Science and Technology of Renewable and Clean Energy Sources* (Kolkata, India 2012).
184. *Core-to-Core EU-Japan Workshop in Computational Nanoscience* (Osaka, Japan 2012).
185. *XVII International Conference on Quantum Systems in Chemistry and Physics* (Åbo, Finland 2012).
186. *CECAM Workshop - Energy from the Sun* (Sardinia, Italy 2012).

187. *Workshop on Complex Oxides* (Mallorca, Spain 2012).
188. *Materials Research Society Fall Meeting* (Boston, USA 2013).

Studia Generalia lecturer, University of Jyväskylä 1988.
Honorary Visiting Fellow, University of New South Wales, Sydney, Australia 1982.
Honorary Visiting Fellow, University of Cambridge and Imperial College, Cambridge and London, UK 1990.
Honorary Visiting Scholar, Korean Advanced Institute for Science and Technology (KAIST), South Korea 2001.
Visiting Scholar, Catholic University of Chile, Santiago, Chile 2006.
Visiting Scholar, Curtin University of Technology, Perth, Australia 2007.
Visiting Scholar, University of Bahia Blanca, Argentina 2008.
Visiting Scholar, Kavli Institute for Theoretical Physics, Santa Barbara, USA 2009.

Ca. 170 invited lectures and seminars at numerous universities and laboratories.

Recent research funding (external)

Domestic

Electronic and structural properties of semiconductors (EPI-2), Academy of Finland, MATRA Grant 1997-1999.
Computational Physics of Materials, Academy of Finland 1998-2000.
Properties of Disordered Materials and Fiber Networks, Academy of Finland 1998 - 2000.
Multiscale modelling of Si processing and Si-based microelectromechanics, Academy of Finland 1999-2002
Modelling and simulation of semiconductor materials and structures, Academy of Finland, 1999-2002.
Magnetic shape memory alloys, TEKES Grant 1999-2001.
COMP: the Center of Excellence in Research 2000-2005, Academy of Finland 2000-2005, 2006-2011, 2012-2017.
MIKSU: Modelling of Microelectromechanical Devices, TEKES Grant 2000-2003.
VIRF: Modelling of Fiber Networks, TEKES Grant 2000-2001.
SURFOX: Particle-Surface Interactions, TEKES Grant 2002-2005.
QUEST: Ultra-fast quantum-regime semiconductors, Academy of Finland Grant 2003-2006.
ELENA: Electronic properties of carbon nanotubes, Academy of Finland Grant 2003-2006.
Computational Nanotechnology, Academy of Finland Grant 2003-2006, 2007-2008.
HYBRIS: Hybrid polymer composites and their processing, TEKES Grant 2005-2007.
FERNAND: Functional ferroelectrics for nanoscale devices, Academy of Finland Grant 2007-2010.
K3MAT: Durable Composite Materials, TEKES Grant 2008-2011.

European

Defect identification in metals and semiconductors, EU Training and Mobility Programme, Research Training Grant, 1997-9.
Electronic structure calculations of materials properties and processes for industry and basic science, EU Training and Mobility of Researchers Network, 1998-2001.
COST Action P3, Simulation of Physical Phenomena in Technological Applications, 1997-2001.
Nordic Collaboration Network on Defects and Atomic Diffusion (NOCDAD), 2001-2005.
Nordic Network on Quantum Phenomena of Nanostructures , 2004-2006.
Coordination Action on Defects Relevant to Engineering Advanced Silicon-based Devices (CADRES), 2004-2007.
BNC Tubes (STREP), 2007-2010.
E-Signage (SME), 2011-2013.

Other foreign

Multiferroic materials, King Abdul Aziz University (Saudi Arabia), 2011-2013

Industrial

Nokia Research Centre, 2007-2011.
MatOx Ltd, 2008-2011.

Publications

Authored and co-authored 462 original scientific publications, 69 review articles, and more than 200 other publications. These have received more than 17800 citations in the Science Citation Index. The h-index of Risto Nieminen is 67.