

## CURRICULUM VITAE

### GENERAL

Date and place of birth: July 7, 1948, Helsinki  
Nationality: Finnish  
Sons: Joonas and Sampsu born 1980 and 1982

### EDUCATION

1972 Diploma Engineer (Master of Science in Engineering) in engineering mathematics and systems theory. Department of Technical Physics, Helsinki University of Technology  
1976 Licentiate of Technology, as above  
1977 Doctor of Technology, as above and  
Optimal controller design by nonlinear and game theoretic methods

Knowledge of Languages: English (good), Swedish (good), German (moderate), French (moderate)

### ACADEMIC CAREER

2017 - 2020 Honorary Visiting Professor, University of Loughborough, UK  
2016 - Senior Advisor, Professor Emeritus, Aalto University  
2010 - 2016 Professor of Applied Mathematics (operations research), Aalto University  
1981 - 2010 Professor of Applied Mathematics (operations research) Helsinki University of Technology  
1995 - 2016 Founder and Director of National Doctoral Graduate School in Systems Analysis, Decision Making and Risk Management  
1996 - 1998 Deputy Head of the Department of Engineering Physics and Mathematics, HUT  
1984 - 2016 Founder and Director of Systems Analysis Laboratory, HUT  
1979 - 1981 Professor of Mathematics and Operations Research, University of Vaasa, Finland  
1979 Senior Research Fellow of the Academy of Finland  
1978 - 1979 Associate Professor of Applied Mathematics, Kuopio University (on leave of absence)  
1976 - 1978 Junior Research Fellow of the Academy of Finland  
1974 - 1976 Research Assistant Fellow of the Academy of Finland

## **VISITS ABROAD AND SABBATICALS**

2015-2016 Macquarie University, Risk Frontiers, Sydney December 2015-January 2016  
2013-2014 University of Technology Sydney, Institute for Sustainable Futures, Distinguished Visiting Scholar from December 2013 to February 2014.  
2010-2011 National University of Singapore, Department of Decision Sciences, Singapore, from December 2010 to March 2011.  
2006 University of Auckland, Department of Engineering Science, New Zealand, from January to May 2006, Honorary Professor in Engineering Science  
2005 MIT, Sloan School of Management, from September to December 2005, Visiting Scholar  
1996 - 1997 University of Cape Town, Dept. of Statistical Sciences, South Africa, from September 1996 to January 1997  
1991 - 1992 University of California, Los Angeles (UCLA), Cognitive Systems Laboratory, Dept. of Computer Science  
1985 - 1986 University of California, Los Angeles (UCLA), Cognitive Systems Laboratory, Dept. of Computer Science  
1980 - 1981 University of California, Berkeley (UCB) Dept. of Mathematics and Dept. of Economics and University of California, Los Angeles (UCLA) Dept. of System Science (Fulbright grant)

## **OTHER ASSIGNMENTS AND MEMBERSHIP IN SCIENTIFIC BODIES**

1998 - 2008 Member of the National IIASA Committee of Finland  
1996 - 1998 Chairman of the European Assembly of the Decision Analysis Society of the Institute for Operations Research and the Management Sciences (INFORMS)  
1996 - 1998 Member of the Administrative Committee of the IEEE Systems, Man and Cybernetics Society.  
1994 - 2000 Member of Systems Analysis Division, Scientific Advisory Board for Defence (MATINE)  
1992 Full Member of the Operations Research Society of America  
International Society of Dynamic Games:  
1990 - 2002 - Member of the Executive Board  
1990 - 2002 - Host of the Secretariat  
1990 - 2006 - Editor of the Society's Newsletter  
1985, 87 - 93 Member of the Board of the Finnish Operations Research Society  
1983 - 1991 Member of the Scientific Advisory Committee for the Finnish IIASA-Committee  
1982 - 2016 Finnish Representative in the Technical Committee on System Modeling and Optimization, (TC-7) International Federation of Information Processing (IFIP)  
1980 - 1994 Finnish Representative in the Mathematics of Control Committee, International Federation of Automatic Control (IFAC)  
1980 - 1982 Member of the Research Council for Technology of the Academy of Finland  
1979 - 1990 Chairman of the Committee for Scientific Cooperation between The Academy of Finland and the International Research Institute for Management Science (IRIMS), Moscow

## **BIOGRAPHICAL REFERENCES**

Marquis' Who's Who in the World  
Men of Achievement  
Who is Who in Finland

## **AWARDS AND HONORS**

2019 The Frank P. Ramsey Medal of the Decision Analysis Society of The Institute for Operations Research and the Management Sciences (INFORMS).  
2008 Honorary President, The Finnish Operations Research Society.  
2004 The MCDM Edgeworth-Pareto Award, International Society on Multiple Criteria Decision Making.  
1985 Member of the Finnish Academy of Technology.

1985, 90	Senior Researchers' Award, The Academy of Finland.
1984	France-Finland scientific fellowship, (June-July).
1980 - 81	Fulbright Research Grant.

## SCIENTIFIC REVIEWING AND EDITORIALSHIPS

*Reviewer of research projects for:*

National Science Foundation, USA  
 European Commission  
 The Canada Council  
 FWF Austrian Science Fund  
 Academy of Finland  
 The Finnish Work Environment Fund

*Membership in editorial boards of professional journals:*

2015 -	Editorial Board of Operational Research: An International Journal (ORIJ)
2014 - 2019	Editorial Board of Systems Research and Behavioral Science
2012 -	Editorial Board of Euro Journal of Decision Processes
2011 - 2013	Associate Editor of Dynamic Games and Applications
2003 - 2014	Editorial Board of European Journal of Operational Research
2001 - 2011	Editorial Board of Decision Analysis
2012 -	Associate Editor of Decision Analysis
2001 - 2004	Editorial Board of Journal Risk, Decision and Policy
1998 - 2015	Associate Editor of International Game Theory Review
1996 - 2004	Editorial Board of Energy Economics
1992 - 2014	Editorial Board of Control and Cybernetics Journal
1993 -	Departmental Editor and Associate Editor of Journal of Group Decision and Negotiation.
1987 - 1997	Associate Editor of Modeling Methodology Forum of the Journal of Applied Physiology

*Reviewer of papers for:*

Annals of Dynamic Games  
 Automatica  
 Decision Sciences  
 Energy  
 Energy Policy  
 Environmental Economics  
 European Journal of Operational Research  
 IEEE Transactions on Automatic Control  
 IEEE Systems, Man, and Cybernetics  
 International Game Theory Review  
 Journal of Economic Dynamics and Control  
 Journal of Group Decision and Negotiation  
 Journal of Environmental Management  
 Journal of Multi-Criteria Decision Analysis  
 Management Science  
 Journal Risk, Decision and Policy  
 Marine Resource Economics  
 Scandinavian Journal of Economics

## RESEARCH INTERESTS

Behavioural Operational Research  
 Systems intelligence  
 Environmental decision making and modeling  
 Multi-criteria decision analysis

Decision support systems  
Dynamic games and optimization  
Simulation  
Energy modeling and electricity pricing

## DOCTORAL GRADUATES

Sampsaa Ruutu (Aalto) 2019  
Tuomas Lahtinen (Aalto) 2018  
Ikkka Leppänen (Aalto) 2016  
Tuomas Mattila (Aalto) 2013  
Jirka Poropudas (Aalto) 2011  
Mika Marttunen (Aalto) 2011  
Jari Perttunen (HUT) 2009  
Janne Karelaita (HUT) 2008  
Jyri Mustajoki (HUT) 2007  
Albert Höglund (HUT) 2006  
Erkka Näsäkkälä (HUT) 2005  
Kai Virtanen (HUT) 2005  
Kari Sinkko (HUT) 2004  
Tony Rosqvist (HUT) 2003  
Maria Holmberg (HUT) 2003  
Jyri Seppälä (HUT) 2003  
Jukka K. Nurminen (HUT) 2003  
Pauli Murto (HUT) 2003  
Anu Kettunen (HUT) 2003  
Jouni Pyykönen (HUT) 2002  
Kimmo Uutela (HUT) 2001  
Heikki Lehtonen (HUT) 2001  
Arto Inkala (HUT) 2001  
Riitta Nelimarkka (UIAH) 2000  
Tuomas Raivio (HUT) 2000  
Janica Ylikarjula (HUT 2000  
Miika Linna (HUT) 1999  
Kaisa Simola (HUT) 1999  
Jussi Keppo (HUT) 1998  
Mari Pöyhönen (HUT) 1998  
Jukka Sinisalo (HUT) 1998  
Jan Holmberg (HUT) 1997  
Marja-Liisa Siikonen (HUT) 1997  
Pertti Laininen (HUT) 1996  
Osmo Jauri (HUT) 1995  
Tatu Koljonen (HUT) 1995  
Mika Räsänen (HUT) 1995  
Urho Pulkkinen (HUT) 1994  
Markku Verkama (HUT) 1994  
Ahti Salo (HUT) 1992  
Jukka Ruusunen (HUT) 1991  
Harri Ehtamo (HUT) 1989  
Jari Hämäläinen (HUT) 1988  
Veijo Kaitala (HUT) 1985

## MAJOR RESEARCH CONTRACTS

2003 - 2016      Finnish Air Force: "The strategy of flight and pilot decision-making".  
2001 - 2004      European Commission, "Information Requirements and Countermeasure Evaluation Techniques in Nuclear Emergency Management (EVATECH)", Partner together with the Finnish Centre for Radiation and Nuclear Safety.

2000 - 2002 European Commission, Information societies technology (IST) program: "Learning and teaching operations research and management science (OR/MS) with a web based hypermedia learning environment", Principal contractor; coordinator: University of Paderborn, Germany.

2001 - 2003 Finnish Air Force: "The dynamics and strategy of flight and the analysis of maintenance systems under uncertain operating conditions".

1993 - 2001 Finnish Air Force: "The dynamics and strategy of flight".

1993 - 2001 Academy of Finland: "Multiple criteria decision analysis in water resources planning (RE-STORE)"Principal contractor; partner: The Finnish Environment Institute.

1999 - 2001 Patria Finavitec Ltd: "Target selection algorithms".

1993 - 2001 Academy of Finland: "Sustainable regulation of large watercourses: principles, indicators and method", Principal partner together with the Finnish Environment Institute.

1997 - 1998 European Commission, Nuclear fission safety program: "Finnish decision conferencing in nuclear emergency management", Partner together with the Finnish Centre for Radiation and Nuclear Safety.