



CURRICULUM VITAE

GENERAL

Date and place of birth: July 7, 1948, Helsinki
Nationality: Finnish
Sons: Joonas and Sampsa 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
[Optimal controller design by nonlinear and game theoretic methods](#)

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

ACADEMIC CAREER

2010 - present Professor of Applied Mathematics (operations research), Aalto University
1981 - 2010 Professor of Applied Mathematics (operations research) Helsinki University of Technology
1995 - present 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 - present 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

| | |
|-------------|---|
| 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 - present | 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

| | |
|-----------|--|
| 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:

2012 - Editorial Board of the Euro Journal of Decision Processes
2011 - 13 Associate Editor of Dynamic Games and Applications
2003 - Editorial Board of the European Journal of Operational Research
2001 - 11 Editorial Board of Decision Analysis
2012 - Associate Editor of Decision Analysis
2001 - 04 Editorial Board of the Journal Risk, Decision and Policy
1998 - Editorial Board of the International Game Theory Review
1996 - 04 Editorial Board of Energy Economics
1992 - Archives of Control Sciences,
Control and Cybernetics
1993 - Associate Editor of Journal of Group Decision and Negotiation.
1987 - 97 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

Multi-criteria decision analysis
Decision support systems
Environmental decision making and modeling
Systems thinking and systems intelligence
Dynamic games and optimization
Risk analysis
Experimental games
Simulation metamodeling

DOCTORAL GRADUATES

Jirka Poropudas (Aalto) 2011
Mika Marttunen (Aalto) 2011
Jari Perttunen (HUT) 2009
Janne Karelahti (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 - 2012 | Finnish Air Force: "The dynamics and strategy of flight, pilot decision-making and simulation of airplane maintenance systems". |
| 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.