Curriculum vitae

MIRKO NAVARA
Center for Machine Perception
Department of Cybernetics
Faculty of Electrical Engineering
Czech Technical University in Prague
Technická 2, 166 27 Praha 6, Czech Republic

Telephone: (+420) 22435 7388
Telefax: (+420) 22435 7385
E-mail: navara@cmp.felk.cvut.cz
http://cmp.felk.cvut.cz/~navara

Born 11th April, 1959 in Ledeč nad Sázavou, Czechoslovakia (now Czech Republic)

WORK EXPERIENCE

Czech Technical University, Dept. of Cybernetics, Center for Machine Perception, Full Professor: Responsibilities include: Research in nonstandard logics and applied mathematics, lectures in Fuzzy Logic, Numerical Analysis, Probability and Statistics. *September, 2007, through present.*

Czech Technical University, Dept. of Cybernetics, Center for Machine Perception, Researcher: Responsibilities include: Research in nonstandard logics and applied mathematics, lectures in Fuzzy Logic, Numerical Analysis and Computer Algebra Systems. *August, 1996, through August, 2007.*

Czech Technical University, Dept. of Mathematics, Assistant Professor: Responsibilities included: Lectures in Numerical Analysis and Computer Algebra Systems, seminars in Linear Algebra, and Mathematical Analysis, preparation and supervision of laboratories on PCs and Apple Macintosh computers, preparation of educational computer programs. *September, 1987, through July, 1996.*

Czech Technical University, Dept. of Mathematics, Postgraduate Student: Responsibilities included: Seminars in Linear Algebra, Mathematical Analysis and Theory of Probability. *September, 1983, through August, 1987.*

EDUCATION

Full Professor in Applied Mathematics, Department of Cybernetics, Faculty of Electrical Engineering, Czech Technical University, October, 2005.

Doctor of Science in Mathematical Logic, Academy of Sciences of the Czech Republic, February 2001.

Docent ($\sim$ Associate Professor) in Applied Mathematics, Department of Mathematics, Faculty of Electrical Engineering, Czech Technical University, October, 1996.

Candidate of Science ($\sim$ PhD) in Mathematical Analysis, Department of Mathematics, Faculty of Electrical Engineering, Czech Technical University, April, 1988.

Diploma Engineer in Technical Cybernetics (specialization Control Engineering), Department of Control Engineering, Faculty of Electrical Engineering, Czech Technical University, July, 1983.

RESEARCH

Recent interest: Alternative models of probability based on quantum and fuzzy logics—algebraic and measure-theoretic aspects.
Recipient of the grants:

PECO 3510PL922147 (European Community) "Quantum Logics and Orthomodular Lattices" (1993)

Aktion Österreich–Tschechien 16p12 "Intelligent Technologies in Signal Processing and Quality Control" (1997/98)

Czech Science Foundation no. 201/97/0437 "Mathematical Models of Uncertainty" (1997–99)

Aktion Österreich–Tschechien 23p16 "Theory and Applications of Fuzzy Control" (1999)

Czech Science Foundation no. 201/02/1540 "Many-valued logics for soft-computing" (2002–04)

Czech Science Foundation 201/07/1136 "Mathematics of Uncertainty" (2007–09)

Supervisor of the following successful PhD. students:
Miroslav Svítek (co-supervisor specialist) 1996
Pavel Mrázek 2001

Rostislav Horčík 2005
Daniel Martinec 2008
Milan Petrík 2009

SELECTED PROFESSIONAL VISITS ABROAD

1989 Switzerland, University of Berne (2 weeks)
1993 France, University of Lyon I (3 months, EC grant PECO)
1995 Austria, Johannes Kepler University Linz (1 month, scholarship Aktion Österreich–Tschechische Republik)
1996 Italy, University "Federico II", Napoli (1 month)
1996 Israel, University of Haifa (1 week)
1997 Slovakia, Slovak Technical University, Bratislava (1 month)
1997 USA, New Mexico State Univ., Las Cruces (2 weeks)
1998 Austria, Johannes Kepler University Linz (3 weeks)
1999 USA, New Mexico State Univ., Las Cruces (2 weeks)
1999 France, University of Lyon I (1 month)
2000 Slovakia, Slovak Technical University, Bratislava (1 month)
2003 Austria, Johannes Kepler University Linz (1 month)
2003 Slovakia, Slovak Technical University, Bratislava (1 month)
2003 Italy, University of Salerno (1 month)
2004 Austria, Johannes Kepler University Linz (1 month)
2004 Germany, Technical University of Dortmund (2 weeks)

SELECTED PUBLICATIONS

Over 200 journal and conference papers, including

Navara, M.: Existence of states on quantum structures. *Information Sci.* **179** (2009), 508–514.

Cintula, P., Klement, E.P., Mesiar, R., Navara, M.: Fuzzy logics with an additional involutive negation. *Fuzzy Sets Syst.* **161** (2010), no. 3, 390–411.

Navara, M.: Characterization of spaces of filtering states. *Internat. J. Theoret. Phys.* **49** (2010), no. 12, 3209–3215. DOI: 10.1007/s10773-009-0213-9

Navara, M., Petrík, M., Sarkoci, P.: Explicit formulas for generators of triangular norms. *Publ. Math. Debrecen* **77** (2010), 171-191.

Harding, J., Navara, M.: Subalgebras of orthomodular lattices. *Order* **28** (2011), no. 3, 549–563. DOI: 10.1007/s11083-010-9191-z

Navara, M.: An algebraic generalization of the notion of tribe. *Fuzzy Sets Syst.* **192** (2012) 123-133. doi:10.1016/j.fss.2011.02.001

Gabriëls, J., Navara, M.: Associativity of operations on orthomodular lattices. *Math. Slovaca* **62** (2012), 1069-1078. http://dx.doi.org/10.1016/j.ins.2013.02.021

Gabriëls, J., Navara, M.: Computer proof of monotonicity of operations on orthomodular lattices. *Information Sci.* **236** (2013), 205–217.

Kuková, M., Navara, M.: Principles of inclusion and exclusion for fuzzy sets. *Fuzzy Sets Syst.* **232** (2013), 98–109. DOI 10.1016/j.fss.2013.02.014

Navara, M.: Convex combinations of fuzzy logical operations. *Fuzzy Sets Syst.* **264** (2015), 51-63. DOI 10.1016/j.fss.2014.10.013

Citations (WoS without self-citations): 445
h-index (WoS): 11
Erdös number: 2

AWARDS

"Prize for Scientific Achievement", awarded by the International Quantum Structures Association, 1996,
"Award for an Excellent Research Achievement" from the Rector of the Czech Technical University in Prague, 2004.

ACTIVITIES

Member of the Editorial Boards of
Soft Computing, since 2009
Fuzzy Sets and Systems, since 2012
Mathematica Slovaca, since 2012
Tatra Mountains Mathematical Publications, since 1998

International Quantum Structures Association, 1991 (President 2006–08, Vice President 2008–10, member of the Council 2001–04 and 2010–14, member of the Nominationg Committee 1996–2001 and 2004–06)
Association of Czech Mathematicians and Physicists, since 1988
European Society for Fuzzy Logic and Technology, since 1998
Czech Society for Cybernetics and Informatics, since 1999 (member of the Committee 2003–08)
Sisyfos (Czech Sceptics Club), since 1998

LANGUAGES

English fluent, Russian fluent, French fair, Italian fair, German passive.

Praha, March 22, 2015