

PROF. DR. MICHAEL HAVBRO FABER (-NIELSEN)

MATRISK GMBH, DECEMBER 2009

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PERSONAL INFORMATION

Name	FABER (-NIELSEN), MICHAEL HAVBRO
Office address	Am Börtli 17, P.O. Box 469, CH-8049 Zurich, Switzerland
Telephone	+41-44-633 31 17
Fax	+41-44-633 14 22 / +41-44-633 10 64
Email	faber@matrisk.com
Homepage	http://www.matrisk.com
Nationality	Danish
Date of birth	03.07.1961

WORK EXPERIENCE

- Occupation or position held
• Dates
Professor – Chair: Risk and Safety
since 01.02.2008
- Occupation or position held
• Dates
Associate Professor – Chair: Risk and Safety
01.06.2004 - 31.01.2008
- Occupation or position held
• Dates
Assistant Professor
01.04.2000 - 31.05.2004
Institute of Structural Engineering (IBK) at ETH Zurich, Zurich, Switzerland
University
Research, lecturing and consulting.
- Occupation or position held
• Dates (from – to)
Consulting Engineer, Co-Founder
since 2004
Matrisk GmbH, Zurich, Switzerland
Consulting
Risk and Reliability Assessment for civil, offshore and marine engineering.
- Occupation or position held
• Dates
Consulting Engineer
1999 – 2000
COWI, Consulting Engineers and Planners AS, Copenhagen, Denmark
Consulting
Group leader, specialist in structural reliability and reassessment.
- Name and address of employer
• Type of business or sector
- Main activities and responsibilities

WORK EXPERIENCE

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- Main activities and responsibilities

Guest Professor

October 1999

Department of Building Technology and Structural Engineering, University of Aalborg, Denmark
University

Lecturing PhD students on "*Bayesian Regression Analysis*".

Consulting Engineer

1998 – 1999

Det Norske Veritas, Høvik, Norway

Consulting

Specialist in structural reliability and risk based inspection planning.

Guest Professor

April 1998 – July 1998

Dep. of Civil, Surveying and Environmental Engineering, University of Newcastle, Australia
University

Sabbatical research leave funded by the COWI foundation, Denmark and the Faculty of Engineering, University of Newcastle, Australia.

Consulting Engineer

1993 – 1998

COWI, Consulting Engineers and Planners AS, Copenhagen, Denmark
Department of special engineering services

Consulting

Specialist in structural reliability analyses and reassessment.

Director, Software Developer

1990 – 1993

RCP-Denmark ApS Reliability Consulting Computing Programming, Denmark
Software Engineering

Development of a software system IMREL for reliability based inspection and repair scheduling of jacket type offshore structures.

Research Associate

1990 – 1993

Department of Building Technology and Structural Engineering, University of Aalborg, Denmark
University

Danish Science Foundation (STVF): funded project on decision analysis in applied structural engineering.

Consultant (free-lance)

1989 – 1990

RCP-GmbH Reliability Computing Programs, Munich, Germany

Engineering

Design review for the ARIANE-5 booster load introduction structure using advanced assessment methods and reliability analysis.

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- Main activities and responsibilities

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 - Type of business or sector
- Main activities and responsibilities

EDUCATION AND TRAINING

- Dates
- Title of qualification awarded
- Name and type of organization providing education and training
- Principal subjects/occupational skills covered

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- Name and type of organization providing education and training
- Principal subjects/occupational skills covered

PERSONAL SKILLS AND COMPETENCES

MOTHER TONGUE

OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

AWARDS AND GRANTS

- Dates
- Award
- Name and type of organization providing the Award

Post Doc

1989 – 1990

Institute for Structural Engineering at the "Technische Universität München", Munich, Germany
Research Group of: Prof. Dr.-Ing.-habil. R. Rackwitz

University

Reliability analysis of structures; Inspection and maintenance planning for offshore structures and pressure vessels.

Research Assistant / PhD

1985 – 1989

Department of Building Technology and Structural Engineering, University of Aalborg, Denmark
University

Danish Science Foundation (STVF): funded research project on reliability of structural systems.

1985 – 1989

PhD

Department of Building Technology and Structural Engineering
University of Aalborg, Denmark

Structural Engineering.

1980 – 1985

M.Sc.

Department of Building Technology and Structural Engineering
University of Aalborg, Denmark

Structural Engineering.

DANISH

ENGLISH, GERMAN

GOOD-EXCELLENT

GOOD-EXCELLENT

GOOD-EXCELLENT

April 1998 – July 1998

Personal grant DKR 120'000,- for a sabbatical research leave

COWI Foundation

COWI Consulting Engineers and Planners AS, Copenhagen, Denmark.

ACTIVITIES WITHIN THE INDUSTRY AND THE ACADEMIC SOCIETY

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- **WEF World Economic Forum**, member of Global Agenda Council on Catastrophic Risks, since 2009.
- **JCSS** - Joint Committee on Structural Safety (<http://www.jcss.ethz.ch/>), president since 01.01.2006, reporter since 2001 and board member since 1992.
- **IFED** - International Forum on Engineering Decision Making (<http://www.ifed.ethz.ch/>), founding member in 2004, chair since 01.01.2009.
- **CERRA** - Civil Engineering Risk and Reliability Association, member of the management board since 1999.
- **IABSE (IVBH)** - International Association for Bridge and Structural Engineering, member of working commission "Structural Performance, Safety and Analysis", since 2000.
- **SIA** - Swiss Code Committee, member since 2001.
- **adpc** - Asian Disaster Preparedness Center in Thailand, member of the International Advisory Council (IAC), since 2007.

PARTICIPATION IN EUROPEAN RESEARCH NETWORKS

- **COST** European Cooperation in the field of Scientific and Technical Research.
E24: Reliability of timber structures, working group leader Switzerland, 2001-2005.
E53: Quality control for wood and wood products, member Switzerland.
E55: Modelling of the performance of timber structures, coordination member Switzerland.
C26: Urban Habitat Constructions under Catastrophic Events, leader work group 4 (WG4) and member Switzerland.
TU0601: Robustness of Structures, Chair and member Switzerland.
- Collaboration Project **SafeLand** "Living with landslide risk in Europe: Assessment, effects of global change, and risk management strategies", EU 7th Framework Programme, since 2009.
- EU-Network **Saferelnet**. Safety and reliability of industrial products, systems and structures. Leader of Working Package **WP4**: Integration of Risk and Reliability Formulations, 2001-2008. Task Leader: **T2.3** Bayesian Modelling in Risk Assessment. **T4.1** Integrated Risk Assessment. **T7.1** RBI Framework.
- International EU-Network **Technological Implementation Plan – eTIP**: Platform for all shared-cost RTD projects 5th Saferelnet Framework Program, www.cordis.europa.eu.

PROFESSIONAL SERVICES AT ETH ZURICH, SWITZERLAND

- **MAS in Natural Hazards Management (MAS NATHAZ)**, Master of Advanced Studies organized by D-BAUG and HazNETH, ETH Zurich, leader since 01.09.2008.
- **Admission Committee** for Master Studies at the Department of Civil, Environmental and Geomatic Engineering, member since 01.10.2009.
- **HazNETH** - Research Network for Natural Hazards at ETH Zurich, chair since 01.10.2009, member since 2004, www.haznet.ethz.ch.
- **CAS** "Risiko und Sicherheit technischer Systeme", member of the general board since 2002.
- **NIDECO** - Network for International Development and Cooperation, steering committee since April 2006, member since 2004, www.nideco.ethz.ch.
- The **ETH Post-Tsunami Initiative**, co-initiator and member since 2005, www.tsunami.ethz.ch.
- **IBK** - Institute of Structural Engineering, director from 01.10.2006 to 30.09.2008.
- **Coordinator** of research & development activities between **D-BAUG** (Department of Civil, Environmental & Geomatic Engineering) and **WSL** (ETH research institution), appointed 2006.
- **ETH-CCES** Competence Center Environment and Sustainability, member of the planning group under the leadership of Prof. Dr. Hannes Flüeler, 2005.

EVALUATION COMMITTEES FOR NEW PROFESSORS

- Professor of *Construction Material* at ETH Zurich, Zurich, Switzerland, 2009-2010.
- *Promotion to Assistant Professor* at the Department of Civil and Environmental Engineering, University of Cyprus, 2009.
- Professor of *Structural Mechanics* at EPFL, Lausanne, Switzerland, 2005-2006.
- Professor of *Glaciology* at ETH Zurich, Zurich, Switzerland, 2001.

ACTIVITIES WITHIN THE INDUSTRY AND THE ACADEMIC SOCIETY

ACADEMIC, SCIENTIFIC AND TECHNICAL COMMITTEES

- Project: **Development of Swedish University of Building Engineering Sciences**, member of the International Advisory Panel, since 2009.
- **ESRA** - Technical Committee on *Offshore Safety*, member since 1992; management board and treasurer in the period 1992-1998.
- **FBH / sia**- Fachverein für Brückenbau und Hochbau, member „Arbeitsgruppe Umgangskultur“ since 2007.
- **fib** Working Party 5.3-1 “Assessment and Residual Service Life Assessment”.
- **fib** Working Party 5.6 “Model Code for Service Life Design of Concrete Structures”.
- Geotechnical Safety Network **GEOSNet**, member of executive board, since 2007.
- **IASSAR-CSMSE** International Association for Structural Safety and Reliability, Committee on Stochastic Methods in Structural Engineering, member of subcommittee SC3: Structural Reliability and Optimization, since 2008.
- **ICASP** - Scientific Committee at the *International Conferences on “Applications of Statistics and Probability in Civil Engineering”*, 4-year conference, since 2003.
- **IFIP WG7.5 Conference on Reliability and Optimization**, Scientific and Technical Committee, member since 2003.
- **ISO/TC98/SC2/WG6** - Assessment of existing structures, work group member since 1996.
- **ISO/TC98/SC2/WG11** - General principles on risk assessment for structures, work group member since 2005.
- **JCSS** - Joint Committee on Structural Safety, member of the working party since 1992, Reporter of WP2 Risk Assessment since 2001, development and management of the web-site <http://www.jcss.ethz.ch/>.
- **OMAE** - Scientific Committee “Structures, Safety and Reliability” at the *ASME International Conferences on Offshore Mechanics and Arctic Engineering*, yearly conference, since 2000.
- **SIA 260** - Swiss Code Committee on Actions on Structures, work group member 2001-2004.
- **SIA 269** - Swiss Code Committee on Assessment of existing Structures, work group member since 2005.
- **Swiss Dam Committee** - Schweizerisches Talsperrenkomitee (STK), work group on Risk Assessment, since 2000.

ACADEMIC COMMITTEES FOR INTERNATIONAL CONFERENCES AND WORKSHOPS

- International Scientific Committee at **ISRERM'2010**, International Symposium on Reliability Engineering & Risk Management, Shanghai, P.R. China, September 23-26, 2010.
- International Scientific Committee at **8th fib International PhD Symposium** in Civil Engineering, TU Denmark, Copenhagen, Denmark, June 20-23, 2010.
- International Scientific Committee at **ICOSSAR2009**, 10th International Conference on Structural Safety and Reliability, Osaka, Japan, September 13-17, 2009.
- Scientific Committee at **NDTCE'09**, International Symposium on Non Destructive Testing in Civil Engineering, Nantes, France, June 30 - July 03, 2009.
- Scientific Committee at the **6th Probabilistic Workshop**, Technical University, Darmstadt, Germany, November 26-27, 2008.
- Scientific Committee at **IWRERM'08**, International Workshop on Reliability Engineering and Risk, Tongji University, Shanghai, China, August 21-23, 2008.
- Technical Advisory Panel at the **4th International ASRAnet Colloquium**, Athens, Greece, June 25-27, 2008.
- Scientific Committee at the **Interdisciplinary Workshop on Rockfall Protection**, organized by IBK ETH Zurich, Morschach, Switzerland, June 23-25, 2008.
- Technical Program Committee at **PSAM9**, 9th International Probabilistic Safety Assessment and Management Conference, Hong Kong, China, May 18-23, 2008.
- Scientific Committee at **MEDACHS'08 1st International Conference** “Construction Heritage in Coastal and Marine Environments”, Lisboa, Portugal, January 28-30, 2008.
- Scientific Committee at the **5th Probabilistic Workshop**, Ghent University, Ghent, Belgium, November 28-29, 2007.
- International Advisory Committee at **ISGSR2007**, First International Symposium on Geotechnical Safety & Risk, Shanghai, China, October 18-19, 2007.

ACTIVITIES WITHIN THE INDUSTRY AND THE ACADEMIC SOCIETY

ACADEMIC COMMITTEES FOR INTERNATIONAL CONFERENCES AND WORKSHOPS

- Technical Committee at **ESREL 2007**, Safety & Reliability Conference, Stavanger, Norway, June 25-27, 2007.
- Steering Committee at **LCC5**, 5th International Workshop on "Life-Cycle Cost Analysis and Design of Civil Infrastructure Systems", Seoul, South Korea, October 16-18, 2006.
- Scientific Committee at the **4th Probabilistic Workshop** "Safety and Risk", Berlin, Germany, October 12-13, 2006.
- Scientific Committee at **IABMAS 2006**, 3rd International Conference on Bridge Maintenance, Safety and Management, Porto, Portugal, July 16-19, 2006.
- Technical Advisory Panel at the **3rd International ASRANet Colloquium** "Network for Integrating Structural Analysis, Risk and Reliability", Glasgow, UK, July 10-12, 2006.
- Scientific Committee at the **3rd Probabilistic Workshop** "Technical Systems + Natural Hazards", Wien, Austria, November 24-25, 2005.
- Steering Committee at **LCC4**, 4th International Workshop on "Life-Cycle Cost Analysis and Design of Civil Infrastructure Systems", Cocoa Beach, Florida, USA, May 08-11, 2005.
- Scientific Committee at **IABMAS-04**, 2nd International Conference on Bridge Maintenance, Safety and Management, Kyoto, Japan, October 19-22, 2004.
- Associate Technical Program Chair at **PSAM 7 / ESREL'04**, International Conference on Probabilistic Safety Assessment and Management, Berlin, Germany, June 14-18, 2004.

INDUSTRY SCIENTIFIC COMMITTEES

- International Advisory Council (IAC) of **adpc** - Asian Disaster Preparedness Center in Thailand, since 2006.
- Technical Position Audit for TNO Building and Construction Research, member of auditing committee, January 2002.
- Specialist Group on Decommissioning of Offshore Installations (TotalFinaElf), member of the group together with Dr. S. Fjeld and Prof. Dr. P. Schiessl, since 2000.
- CRIS – Joint Industry Project on reliability and inspection planning of pressure vessels and pipelines subject to corrosion, managed by Prof. Dr. W. Dover, University College London.

RESEARCH PROJECT APPLICATION REVIEWS

- ARC – Australian Research Council, since 2003.
- DFG – Deutsche Forschungsgemeinschaft, since 2000.
- ESF – European Science Foundation, since 2009.
- FORMAS – The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning, since 2004.
- FWF – Austrian Science Fund, since 2004.
- ISF – Israel Science Foundation, since 2007.
- QNR – Qatar National Research Fund, since 2008.
- RWTH Aachen: Human Technology Centre (HumTec), since 2008.
- SNF – Swiss National Science Foundation, since 2007.

EDITORIAL AND REVIEW BOARDS

- **Probabilistic Engineering Mechanics**, editorial board since 2006.
- **Structural Safety**, editorial board since 2008.
- **Georisk** Assessment and Management of Risk for Engineered Systems and Geohazards, editorial board since 2007.
- **IJRS International Journal of Reliability and Safety**, editorial board since 2006.
- **International Journal of Engineering under Uncertainty: Hazards, Assessment and Mitigation**, assoc. editor, since 2008.
- **SEI** - Journal of "Structural Engineering International", Ed. **IABSE** International Association for Bridge and Structural Engineering, editorial board since 2000.
- Journal of **Computer & Structures**, review board since 2006.
- **Waste Management & Research**, ISWA International Solid Waste Association, review board since 2005.

ACTIVITIES WITHIN THE INDUSTRY AND THE ACADEMIC SOCIETY

INITIATION AND ORGANIZATION OF INTERNATIONAL CONFERENCES AND WORKSHOPS

- Organizer of **ICASP11**, 11th International Conference on "*Applications of Statistics and Probability in Civil Engineering*", ETH Zurich, Zurich, Switzerland, 01.-04.08.2011, <http://www.icasp.ethz.ch>.
- Organizer of **IFED** - International Forum on Engineering Decision Making, "Fifth Forum", Stoos, Switzerland, 07.-11.12.2010.
- Co-Organizer with Prof. Jun Kanda of **IFED** - International Forum on Engineering Decision Making, "Fourth Forum - Long-term Policy Makings for Sustainable Society", Hakone, Japan, 13.-16.05.2009.
- Co-Organizer with Ass. Prof. Jack W. Baker, Stanford University and **JCSS** of "International Workshop on Structural Robustness, Stanford University, Palo Alto CA, USA, 28.10.2008.
- Organizer of **1st Workshop "Robustness of Structures"** - COST-Action TU0601, ETH Zurich, Zurich, Switzerland, 04.-05.02.2008.
- Co-Organizer with Prof. Mark Stewart of **IFED** - International Forum on Engineering Decision Making, "Third Forum – Optimal strategies for disaster and hazard mitigation", Port Stephens, NSW, Australia, 12.-15.12.2007.
- Organizer (in collaboration with Prof. Marc A. Maes, Prof. Ton Vrouwenvelder) of Technical Session "OS21 Developments in the JCSS" at **ICASP10**, Tokyo, Japan, 31.07.-03.08.2007.
- Organizer (in collaboration with Ass.Prof. Jack W. Baker, Stanford University and JCSS) of **International Workshop on "Risk Acceptance and Risk Communication"**, Stanford University, Palo Alto CA, USA, 26.-27.03.2007.
- Organizer of **International Interdisciplinary Workshop** on "Management of Earthquake Risks", ETH Zurich, Zurich, Switzerland, 28.-29.08.2006.
- Co-Organizer with Prof. Marc A. Maes of **IFED** - International Forum on Engineering Decision Making, "Second Forum - Decision making involving spatially distributed systems", Lake Louise, Canada, 26.-29.04.2006.
- Organizer (in collaboration with Bureau Veritas, Switzerland) of „**Expertentagung Sicherheit**: Das Gefährdungspotential bei Bauten, Anlagen und Industrieerzeugnissen für den Menschen in der Schweiz: Erkennung und Vermeidung", ETH Zurich, Zurich, Switzerland, 10.01.2006.
- Organizer (in collaboration with JCSS and IABSE) of the **International Workshop on "Robustness of Structures"**, Garston, Watford, United Kingdom, 28.-29.11.2005.
- Organizer (in collaboration with AIT, Bangkok) of **Post-Tsunami Workshop** on "Sustainable Management of Natural Hazards in the Region of South-East Asia", Bangkok, Thailand, 22.-26.08.2005.
- Organizer (in collaboration with Prof. Marc A. Maes) of Session 7: "Decision Making in Engineering", **ICOSSAR2005**, 9th International Conference on Structural Safety and Reliability, Rome, Italy, 19.-23.06.2005.
- Session Chair of Technical Session 2-10: "Risk Based Inspections and Maintenance II", **OMAE2005** 24th International Conference on Offshore Mechanics and Arctic Engineering, Halkidiki, Greece, 12.-17.06.2005.
- The group "Risk and Safety" organized the platform "Rockfall Simulation" at the **150Jahre ETH Zurich Exhibition** "Welten des Wissens", Zurich, Switzerland, 22.04.-08.05.2005.
- Organizer of **IFED** International Forum on Engineering Decision, "First Forum – Consequence modeling in engineering decision making", Stoos, Switzerland, 05.-09.12.2004.
- Organizing Committee for **Saferelnet** Workshop on "Integration of Approaches and Methodologies for SRA and QRA in Risk Engineering", Copenhagen, Denmark, 19.-21.05.2003.
- Organizer (in collaboration with EPFL) of the joint event: **3rd International Workshop LCC03/IABMAS, fib WG 5.3-1, WG 5.6** and **JCSS**, Lausanne, Switzerland, 24.-26.03.2003.
- Organizer of **2nd Saferelnet General Meeting**, Zurich, Switzerland, 16.-18.10.2002.
- Organizer of **International COST E24 Workshop** on "Reliability of Timber Structures", Zurich, Switzerland, 10.-11.10.2002.
- Organizer of **International Workshop** on "Reliability Based Code Calibration", Zurich, Switzerland, 21.-22.03.2002.
- Organizer of **International Workshop** on "Reliability and Risk Based Inspection and Maintenance Planning", Zurich, Switzerland, 14.-15.12.2000.

RESEARCH AND ADVISOR ACTIVITIES

1) CHAIR "RISK AND SAFETY" AT THE INSTITUTE OF STRUCTURAL ENGINEERING IBK ,ETH ZURICH, SWITZERLAND

	Name	Year	Position
SCIENTISTS	Annett Anders	Since 2009	Scientific assistant, PhD student
	Gianluca De Sanctis	Since 2009	Scientific assistant, PhD student
	Gerhard Fink	Since 2009	Scientific assistant, PhD student
	Mathias Graf	Since 2007	Scientific assistant, PhD student
	Dr. Jochen Köhler	Since 2001	Scientific employee, PhD (2001-2005)
	Katharina Krämer	Since 2008	Scientific assistant, PhD student
	Dr. Nebosja Mojsilovic	Since 2006	Scientific employee
	Harikrishna Narasimhan	Since 2007	Scientific assistant, PhD student
	Dr. Kazuyoshi Nishijima	Since 2004	Scientific employee, PhD (2004-2009)
	Jianjun QIN	Since 2006	Scientific assistant, PhD student
	Eva Sabiote	Since 2006	Scientific assistant, PhD student
	Markus K. Sandomeer	Since 2007	Scientific assistant, PhD student
	Dr. Matthias Schubert	Since 2004	Scientific employee, PhD (2004-2009)
	Sebastian Thöns	Since 2007	External PhD student (BAM, Berlin)
	Annette Walzer	Since 2001	Scientific assistant
	Shuoyun ZHANG	Since 2009	External PhD student (China)
	ADMINISTRATION, IT	Patricia Meile	Since 2004
Palmira Zaniboni		Since 2008	Administration
Roberto Pascolo		Since 2004	IT-specialist
ALUMNI	Ass.Prof. Dr. Jack W. Baker	2005-2006	Scientific employee / Post-Doc
	Dr. Yahya Y. Bayraktarli	2002-2008	Finalization PhD in December 2009
	Dr. Oliver Kübler	2000-2005	PhD
	Dr. Vasiliki Malioka	2001-2008	Finalization PhD in April 2009
	Dr. Daniel Straub	2000-2005	PhD (2000-2004), Post-Doc (2005)
	Dr. Jens P. Ulfkjaer	2004-2006	Scientific employee

2) RECENT ADVISOR ACTIVITIES

Activity	Year	Level
Supervisor and Co-Advisor: PhD projects, ETH Zurich.	Since 2000	PhD
Co-Advisor to PhD projects at ICOM, EPFL Lausanne, Switzerland.	Since 2003	PhD
Advisor and Co-Advisor to Master and Bachelor projects, ETH Zurich.	Since 2001	Master / Bachelor, Civil-, Environmental- and Geomatic Engineering and Planning
External Supervisor at DTU, Lyngby, Denmark.	Since 2000	M.Sc.
Advisor to final thesis, ETH Zurich.	Since 2000	Students of "Risk and Safety" continuing education

3) EXTERNAL REFEREE FOR PHD PROJECTS

University	Year
Aalborg University, Denmark	2001
EPFL Lausanne, Switzerland	2001, 2005 and 2006
Technical University Munich, Germany	2006 and 2009
Technical University Delft, The Netherlands	2003 and 2007
University of Newcastle, Australia	2003 and 2005

RECENT TEACHING ACTIVITIES AT ETH ZURICH, SWITZERLAND

	Name	Year	Level
1) BASIC STUDIES	Statistics and Probability Theory (lectures and exercises).	Spring 09	Bachelor Studies in Civil-, Environmental- and Geomatic Engineering and Planning, 2 nd Semester.
	Risk and Safety in Civil Engineering (lectures).	Fall 2009	Master Studies in Civil-, Environmental- and Geomatic Engineering and Planning, 7 th Semester.
	Finite Elements I: Linear Methods.	Spring 09	Master Studies in Civil-, Environmental- and Geomatic Engineering and Planning, 8 th Semester.
	Finite Elements II: Non-Linear Methods.	Fall 2009	Master Studies in Civil-, Environmental and Geomatic Engineering and Planning, 9 th Semester.
2) PHD STUDIES	Bayesian probabilistic networks in engineering.	Fall 2009	PhD-Seminar, in collaboration with Prof. Dr. Marc A. Maes, Dr. K. Nishijima.
	Aspects of integral risk management in engineering.	Fall 2009	PhD-Seminar, general course in Civil Engineering.
3) CONTINUING EDUCATION	<u>Modules:</u> Statistics and Probability Risk Assessment Consequence Modeling Case Study	2009-2011	MAS ETH Zurich in "Natural Hazards Management": September 2009 – August 2011
	<u>Modules:</u> G1: Methoden der systemorientierten Risikoanalyse. Modul V3: Sicherheit in der Konstruktion.	2008-2010	CAS ETH Zurich "Risiko und Sicherheit technischer Systeme": G1: September 17-19, 2008 October 01-03, 2008. V3: May 13-15 and May 28-29, 2009.

INVITED PRESENTATIONS, LECTURES AND COURSES 2010-2011

2009

- Keynote lecture on *Probabilistic modeling of infrastructure performance and socio-economical optimization*, Royal Society discussion meeting, London, United Kingdom, to be held in 2011.
- Invited lecture on *Resilience and Robustness of Structures*, UNESCO/COST C22 Urban Flood Management Conference, Paris, France, 26.11.2009.
- Invited lecture on *Socio Economical Preference Conform Safety Regulation*, International Symposium on Risk and Reliability Applications on Engineering Planning and Design, Engineering School, UAEM, Toluca, Mexico, 09.11.2009.
- Invited lecture on *HazNeth and risk research*, Interdisciplinary CCSS Seminar on Modeling Complex Socio-Economic Systems and Crises, ETH Zurich, Zurich, Switzerland, 29.09.2009.
- Keynote-Lecture on *Risk informed decision making concerning engineered facilities*, SEDUREC 2009 International Symposium on Safety and Durability of Materials and Constructions, Barcelona, Spain, 27.02.2009.
- Invited lecture on *Risk and Reliability Analysis for Integrity Management of Offshore Facilities*, Faculty of Engineering, University of Genoa, Genoa, Italy, 14.01.2009.
- Invited lecture on *Risk and Reliability in Civil Engineering*, Department of Structural Mechanics, University of Pavia, Pavia, Italy, 13.01.2009.

2008

- Guest lectures on *Application of risk and safety for sustainable developments in civil engineering*, Aalborg University, Aalborg, Denmark, 12.12.2008.
- Presentation on *Risk assessment on the roadway system*, IVT-Seminar Gefährdete Verkehrsnetze, ETH Zurich, Zurich, Switzerland, 04.12.2008.
- Invited lecture on *Management of structural risks*, advanced course in "Risk management in civil engineering", LNEC, Lisbon, Portugal, 20.11.2008.

INVITED PRESENTATIONS, LECTURES AND COURSES

2008

- Invited lecture on *RBI for floating facilities (FPSO/FSO)*, American Bureau of Shipping Technology, Houston, Texas, USA, 17.11.2008.
- Keynote lecture on *Thesen zur Rolle der Umgangskultur*, FBH/SIA Herbsttagung "Umgangskultur im Bauwesen - ein Tabu wird zum Thema", Zurich, Switzerland, 12.11.2008.
- Keynote lecture on *Advances in the evaluation of robustness of structures*, COST C26 International Symposium, University of Malta, Valetta, Malta, 23.10.2008.
- Keynote lecture on *Risk based approach to the management of structural robustness*, IWRERM08 - International Workshop on Reliability Engineering and Risk Management, Nagoya Institute of Technology at Tongji University, Shanghai, China, 21.08.2008.
- Invited lecture on *Optimal bridge maintenance with Bayesian Networks*, Course-Workshop on "Optimal Bridge Maintenance based on Risk and Reliability", Engineering School, UAEM, Toluca, Mexico, 12.08.2008.
- Invited presentation on *Assessment and Management of Risk in Public Infrastructure*, Workshop on "Performance and Management of Core Public Infrastructure", NRC National Research Council of Canada, Ottawa, Canada, 08.07.2008.
- Invited guest presentation on *The Joint Committee on Structural Safety, fib-Meeting Technical Council*, Amsterdam, NL, 17.05.2008.
- Invited presentation on *Decision Making on Sustainable Life Safety*, Tsinghua University, Beijing, China, 24.04.2008.

2007

- Invited lecture on *Large Scale Risk Management Using Real Time Information*, Expert Symposium "Climate Change: Modelling, Impacts and Adaptations", National University of Singapore, Singapore, 18.12.2007.
- Presentation on *Beurteilung von Restrisiken und Kriterien zur Festlegung akzeptierter Risiken in Folge aussergewöhnlicher Einwirkungen bei Kunstbauten*, 4. ASTRA/FBH Tagung "Neues aus der Brückenforschung", Bern, Switzerland, 20.11.2007.
- Keynote lecture on *Recent developments in the management of risks due to large scale natural hazards*, SMIS - XVI Mexican National Conference on Earthquake Engineering, Ixtapa, Guerrero, Mexico, 03.11.2007.
- Keynote lecture on *Assessing and Managing Risks due to Natural Hazards*, ISGSR2007, First International Symposium on Geotechnical Safety & Risk, Shanghai, China, 19.10.2007.
- Keynote lecture on *Recent Advances in Risk Assessment of Engineered Facilities*, CERUP International Conference "Risk Management in Production Activities", Porto, Portugal, 10.10.2007.
- Keynote lecture on *Reliability Assessment of Structures*, COST E55 Opening Workshop, Graz University of Technology, Graz, Austria, 14.05.2007.
- Richardson lecture on *Applied Engineering Decision Analysis*, University of Colorado at Boulder, Boulder, USA, 16.03.2007.
- Presentation on *Recent Developments in Large Scale Risk Assessment*, Tsinghua University, Beijing, China, 12.01.2007.

2006

- Course on *Risk Based Decision Making*, Norwegian Road Directorate, Stavern, Norway, 28.11.2006.
- Presentation on *Temporal and Spatial Probabilistic Engineering Modeling*, The Rackwitz Symposium – a Milestone in Structural Reliability, TUM, Munich, Germany, 24.11.2006.
- Presentation on *Methods of Structural Reliability for Engineering Decision Making*, ACI Fall Convention, Denver, USA, 05.11.2006.
- Presentation on *Risikoanalyse zur gesellschaftlichen Entscheidungsfindung*, Herbsttagung SBGF Schweizerische Gesellschaft für Boden- und Felschenmechanik, Lucerne, Switzerland, 03.11.2006.
- Lectures on *How safe is safe enough*, Tsinghua University, Beijing, China, 23.10.2006.
- Lectures on *Methods of Risks and Reliability in Civil Engineering, Decision Making for Society, Risk based Planning and integrated Management, Assessment of Structural Robustness and Basics of Bayesian Decision Analysis*, HARBIN Institute of Technology, Heilongjiang, China, 20. and 21.10.2006.
- Presentation on *New Directions in Risk Assessment in Civil Engineering*, CRR Centre for Risk Analysis and Risk Assessment, University of Technology, Lulea, Sweden, 29.09.2006.

INVITED PRESENTATIONS, LECTURES AND COURSES

2006

- Keynote lecture on *Robustness of Structures* at Workshop "Robust Structures", CBI Swedish Cement and Concrete Research Institute, Stockholm, Sweden, 28.09.2006.
- Keynote Speaker on *Construction Safety & Health in the Framework of Civil Engineering Risk Assessment*, CIB W99 - International Conference on Global Unity for Safety & Health in Construction, Beijing, China, 29.06.2006.
- Presentations on *Wie sicher ist sicher genug?* Senioren-Universität in Zurich and Winterthur, Switzerland, 23.05. and 14.06.2006.
- Presentation on *Spatial and Temporal Modeling of Degradation of Concrete in Maintenance Management*, COWI, Lyngby-Copenhagen, Denmark, 17.05.2006.
- Lecture on "*On Applied Decision Making for Society*", Tsinghua University, Beijing, China, 30.03.2006.
- Presentation on *Reliability and Risks in Construction*, SAFERELNET Seminar "Reliability and Risk in Civil Infrastructure", Klokner Institute CTU, Prague, Czech Republic, 13.02.2006.

2000-2005

- Presentation on *A Swiss Study on the WTC Collapse for Improving Design and Safety of Extraordinary Building Structures*, NIST Conference, Gaithersburg, USA, 15.09.2005.
- Keynote-Lecture on *Sustainable Risk Management of Natural Hazards in South East Asia*, Scientific Forum on "The Tsunami, its Impact and Recovery", Bangkok, Thailand, 06.06.2005.
- Keynote-Lecture on *On Applied Engineering Decision Making for Society*, IFIP WG7.5, 12th Working Conference on Reliability and Optimization of Structural Systems, Aalborg, Denmark, 22.05.2005.
- Presentations on *Wie sicher ist sicher genug?* 150th anniversary project of ETH Zurich „150 ETH Professorinnen und Professoren im Gespräch“, Zurich, Switzerland, 23.04.-02.05.2005.
- Presentation on *Angemessenes Sicherheitsniveau im Bauwesen*, SIA, 3. Sitzung des Normenbeirats für das Baunormenwesen in der Schweiz, Bern, Switzerland, 30.11.2004.
- Lecture on *Risikobasierte Instandhaltung (RBI)*, International Institute of Research (IIR), Congress, Vienna, Austria, 23.03.2004.
- Lecture on *Die Risikobasierte Instandhaltung (RBI) von der Methode zur Budgetplanung und Erfolgskontrolle*, International Institute of Research (IIR), Basel, Switzerland, 27.01.2004.
- Lecture on *What is the cost of safety - are we allocating our resources rationally*, The Danish/Nordic Concrete Day, Copenhagen, Denmark, 25.09.2003.
- Presentation on *Risk based design and maintenance of structures*, Institute of Fundamental Technological Research, Polish Academy of Science, Warsaw, Poland, 15-18.09.2003.
- Course on *Reliability Methods in Civil Engineering*, HARBIN University of Science and Technology, Heilongjiang, China, 8-12.09.2003.
- Lecture on *Generic Inspection Plans for Steel Structures Subject to Fatigue*. Workshop on Risk-Based Maintenance of Structures, TU Delft, Netherlands, 21.01.2003.
- Lecture on *Grundlagen der Risikobasierten Instandhaltung*, Maintenance and Asset Management, Euroforum, Arabella Sheraton Atlantis Hotel, Zurich, Switzerland, 20.11.2002.
- Lecture on *Decision Making and Risk Acceptance*. Danish Society for Risk Analysis, Copenhagen, Denmark, 21.10.2002.
- Presentation on *Risk Assessment for Optimal Decision Making*, RBO'02 Workshop, Inst. of Fundamental Techn. Research, Polish Academy of Science, Warsaw, Poland, 25.09.2002.
- Lecture on *Risiko-Bewertung im Bauwesen - Fortschritte und Ausblicke*, IBK Kolloquium, ETH Zurich, Zurich, Switzerland, 02.07.2002.
- Lecture on *Risk Based Maintenance, Konzepte, Strategien und organisatorische Umsetzung*. Euroforum, Hotel Maritim, Bad Homburg, Germany, May 2002.
- Lecture on *Inspection Planning of Fatigue Damaged Offshore Structures*, Symposium on Risk Analysis in Offshore Engineering, Mexico City, Mexico, December 2001.
- Course on *Risk Based Inspection Planning*, Rio de Janeiro, Brazil, 05.-10.10.2001.
- Lecture on *Basics of Structural Reliability*, Univ. of Coimbra, Coimbra, Portugal, May, 2001.
- Lecture on *Reliability of Exceptional Structures*, Weltkongress, Sicherheit moderner technischer Systeme, Saarbrücken, Germany, September 2001.
- Risiko und Sicherheit im Bauwesen, Antrittsvorlesung, ETH Zurich, Switzerland, 10.01.2001.
- Lecture on *Risk Based Inspection and Maintenance Planning*, Academy of Science, Prague, Czech Republic, 30.09.2000.

PUBLICATIONS (2005-2009)

JOURNAL PAPERS (REFEREED)

2009

- Straub D., Malioka V., Faber M.H. (2009). A framework for the asset integrity management of large deteriorating concrete structures. *Structure and Infrastructure Engineering: Maintenance, Management, Life-Cycle Design and Performance*, 5(3), June 2009, pp.199-213 (online since 09.03.07, ISSN 1744-8980, Taylor & Francis).
- Faber M.H. (2009). Structural safety special issue on risk and risk communication (Foreword). *Structural Safety*, 31(2), March 2009, p. 97.
- Nishijima K., Maes M.A. Goyet J., Faber M.H. (Ed.) (2009). Constrained optimization of component reliabilities in complex systems. *Structural Safety*, 31(2), March 2009, pp.168-178, special ed. M.H. Faber (online since 28.08.08: [doi:10.1016/j.strusafe.2008.06.016](https://doi.org/10.1016/j.strusafe.2008.06.016)).
- Nishijima K., Faber M.H. (2009). Societal performance of infrastructure subject to natural hazards. *Australian Journal of Structural Engineering*, 9(1), March 2009, Special issue on Disaster & Hazard Mitigation (IFED 2007), pp. 9-16.
- Graf M., Nishijima K., Faber M.H. (2009). Bayesian updating in natural hazard risk assessment. *Australian Journal of Structural Engineering*, 9(1), March 2009, Special issue on Disaster & Hazard Mitigation (IFED 2007), pp. 35-44.
- Nishijima K., Faber M.H. (2009). A budget management approach for societal infrastructure projects. *Structure and Infrastructure Engineering: Maintenance, Management, Life-Cycle Design and Performance*, 5(1), February 2009, pp. 41-47, (online since: 23.08.07, ISSN 1744-8980, Taylor & Francis).
- Montes-Iturrizaga R., Heredia-Zavoni E., Vargas-Rodriguez F., Faber M.H., Straub D., De Dios de la O. J. (2009). Risk Based Structural Integrity Management of Marine Platforms Using Bayesian Probabilistic Nets. *Journal of Offshore Mechanics and Arctic Engineering*, Trans. ASME, 131(1), February 2009, paper 011602, 10 pp.

2008

- Faber M.H., Maes M.A. (2008). Issues in societal optimal engineering decision making. *Structure and Infrastructure Engineering*, 4(5), October 2008, pp. 335-351 (online since August 07, 2007, ISSN 1744-8980, Taylor & Francis).
- Thöns S., Rohrmann R.G., Rucker W., Faber M.H. (2008). Bewertung der Ermüdungsfestigkeit von Baustrukturen in Offshore-Windenergie-Anlagen, *Stahlbau*, 77(9), September 2008, pp. 630-638.
- Baker J.W., Schubert M., Faber M.H. (2008). On the assessment of robustness. *Structural Safety*, 30(3), May 2008, pp. 253-267.
- Von Radowitz B., Schubert M., Faber M.H. (2008). Robustness of Externally and Internally Post-Tensioned Bridges. *Beton- und Stahlbetonbau*, Vol.103, special edition: Robustness and Safety of Concrete Structures, April 2008, pp. 16-22.
- Baker J.W., Faber M.H. (2008). Liquefaction Risk Assessment Using Geostatistics to account for Soil Spatial Variability. *ASCE Journal of Geotechnical and Geoenvironmental Engineering*, 134(1), January 2008, pp. 14-23.
- Maes M.A., Faber M.H. (2008). Hierarchical approach to reliability-based inspection planning of hull structures. *Ship Technology Research (Schiffstechnik)*, 55(1), January 2008, pp. 2-11.

2007

- Maes M.A., Faber M.H. (2007). Consequence modeling based on stated preferences. *Australian Journal of Civil Engineering*, 4(1), December 2007, pp. 47-58.
- Nishijima K., Straub D., Faber M.H. (2007). Sustainable decision for life-cycle based design and maintenance. *Australian Journal of Civil Engineering*, 4(1), December 2007, pp. 59-72.
- Straub D., Faber M.H. (2007). Temporal Variability in Corrosion Modeling and Reliability Updating. *Journal of Offshore Mechanics and Arctic Engineering*, Trans. ASME, 129(4), November 2007, pp. 265-272.
- Maes M.A., Faber M.H. (2007). Preferences, utility and risk perception in engineering. *International Journal of Risk Assessment and Management*, Vol. 7, No.6/7, November 2007, pp. 813-827 (special ed. Ross Corotis).
- Köhler J., Sørensen J.D., Faber M.H. (2007). Probabilistic modeling of timber structures. *Structural Safety*, 29(4), October 2007, pp. 255-267.
- Nishijima K., Straub D., Faber M.H. (2007). Inter-Generational Distribution Of The Life-Cycle Cost Of An Engineering Facility. *Journal of Reliability of Structures and Materials*, 3(1), July 2007, pp. 33-46.
- Nishijima K., Faber M.H. (2007). Bayesian approach to proof loading of quasi identical multi-components structural systems. *Civil Engineering and Environmental Systems*, 24(2), June 2007, pp. 111-121.

PUBLICATIONS (2005-2009)

JOURNAL PAPERS (REFEREED)

2006

- Maes M.A., Faber M.H. (2006). Bayesian framework for managing preferences in decision making. *Reliability Engineering & System Safety*, **91**(5), May 2006, pp. 556-569.
- Straub D., Faber M.H. (2006). Risikobasierte Inspektionsstrategien für den optimalen Unterhalt von Tragwerken. *Stahlbau*, **75**(5), Mai 2006, pp. 389-396.
- Straub D., Faber M.H. (2006). Computational Aspects of Risk-Based Inspection Planning. *Computer-Aided Civil and Infrastructure Engineering*, **21**(3), April 2006, pp. 179-192.
- Faber M.H., Straub D., Maes M.A. (2006). A Computational Framework for Risk Assessment of RC Structures using Indicators. *Computer-Aided Civil and Infrastructure Engineering*, **21**(3), April 2006, pp. 216-230.

2005

- Faber M.H. (2005). Risiko und Sicherheit im Bauingenieurwesen. *Der Bauingenieur*, Springer Science+Business Media Schweiz AG, **1**(11), November 2005, pp. 24-32.
- Straub D., Faber M.H. (2005). Risk based inspection planning for structural systems. *Structural Safety*, **27**(4), October 2005, pp. 335-355.
- Faber M.H., Sørensen J.D., Tychsen J., Straub D. (2005). Field Implementation of RBI for Jacket Structures. *Journal of Offshore Mechanics and Arctic Engineering*, Trans. ASME, **127**(3), August 2005, pp. 220-226.
- Faber M.H. (2005). On the Treatment of Uncertainties and Probabilities in Engineering Decision Analysis. *Journal of Offshore Mechanics and Arctic Engineering*, Trans. ASME, **127**(3), August 2005, pp. 243-248.
- Rackwitz R., Lentz A., Faber M.H. (2005). Socio-economically sustainable civil engineering infrastructures by optimization. *Structural Safety*, **27**(3), July 2005, pp. 187-229.
- Straub D., Faber M.H. (2005). Die Planung und der Wert von Inspektionen für Bauwerke. *Der Bauingenieur*, Springer Science+Business Media Schweiz AG, **1**(6), Juni 2005, pp. 24-29.
- Straub D., Faber M.H. (2005). Risk Based Acceptance Criteria for Joints Subject to Fatigue Deterioration. *Journal of Offshore Mechanics and Arctic Engineering*, Trans. ASME, **127**(2), May 2005, pp. 150-157.

CONFERENCE PAPERS (REFEREED)

2009

- Graf M., Nishijima K., Faber M.H. (2009). A probabilistic typhoon model for the northwest Pacific region. *Proceedings APCWE-VII*, Taipei, Taiwan, November 8-12, 2009.
- Narasimhan H., Faber M.H. (2009). Categorisation and assessment of robustness related provisions in European standards. Proceedings of joint workshop TU0601 and E55, Ljubljana, Slovenia, September 21-22, 2009, pp. 147-164.
- Sørensen J.D., Rizzuto E., Faber M.H. (2009). Robustness – theoretical framework. Proceedings of joint workshop TU0601 and E55, Ljubljana, Slovenia, September 21-22, 2009, pp. 35-44.
- Nishijima K., Graf M., Faber M.H. (2009). Optimal evacuation and shut-down decisions in the face of emerging natural hazards. *Proceedings ICOSSAR2009*, 10th International Conference on Structural Safety and Reliability, Osaka, Japan, September 13-17, 2009.
- Mojsilovic N., Faber M.H. (2009). Probabilistic assessment of masonry compressive strength. *Proceedings ICOSSAR2009*, 10th International Conference on Structural Safety and Reliability, Osaka, Japan, September 13-17, 2009.
- Maes M.A., Faber M.H., Dann M.R. (2009). Hierarchical modeling of pipeline defect growth subject to ILI uncertainty. *Proceedings OMAE2009*, 28th International Conference on Ocean, Offshore and Arctic Engineering, Honolulu, USA, May 31-June 05, 2009, [OMAE2009-79470].
- Faber M.H., Straub D., Montes-Iturrizaga R., Heredia-Zavoni E. (2009). FPSO Risk Assessment and Acceptance Criteria with Application to FPSO Mooring Systems. *Proceedings OMAE2009*, 28th International Conference on Ocean, Offshore and Arctic Engineering, Honolulu, USA, May 31-June 05, 2009, [OMAE2009-80242].

2008

- Sandomeer M.K., Köhler J., Faber M.H. (2008). Adaptive adjustment of grading machine settings. *Proceedings, COST E53 Conference End User's Needs for Wood Material and Products*, Delft, The Netherlands, October 29-30, 2008.
- Faber M.H. (2008). General methodology for risk assessment. *Proceedings, COST C26 International Symposium on Urban Habitat Constructions Under Catastrophic Events*, Valetta, Malta, October 23-25, 2008, pp. 347-352.

PUBLICATIONS (2005-2009)

CONFERENCE PAPERS (REFEREED)

2008

- Faber M.H., Narasimhan H. (2008). Advances in the evaluation of robustness of structures. *Proceedings, COST C26 International Symposium on Urban Habitat Constructions Under Catastrophic Events*, Valetta, Malta, October 23-25, 2008, pp. 509-515.
- Thöns S., Faber M.H., Rohrmann R.G., Rücker W. (2008). Assessment and monitoring of reliability and robustness of offshore wind energy converters. *Proceedings, joint ESREL 2008 and 17th SRA-Europe Conference*, Valencia, Spain, September 22-25, 2008, pp. 1567-1575.
- Sandomeer M.K., Köhler J., Faber M.H. (2008). Quality control of machine graded structural timber by means of probabilistic output control procedures. *Proceedings, CIB-W18 - 41st meeting*, St. Andrews, Canada, August 25-28, 2008, paper 41-5-1.
- Graf M., Nishijima K., Faber M.H. (2008). Adaption of typhoon risk modeling to climate changes. *Proceedings, IDRC International Disaster and Risk Conference*, Davos, Switzerland, August 25-29, 2008.
- Faber M.H. (2008). Risk based approach to the management of structural robustness. *Proceedings, IWRERM08 International Workshop on Reliability Engineering and Risk Management*, Shanghai, China, August 21-23, 2008.
- Schubert M., Faber M.H. (2008). System effects in portfolio loss estimation. *Proceedings, IFIP'08 WG7.5 Working Conference*, Mexico City, Mexico, August 6-9, 2008.
- Nishijima K., Faber M.H. (2008). Implicit proof-load effect in life-cycle assessment of structural performance. *Proceedings, IFIP'08 WG7.5 Working Conference*, Mexico City, Mexico, August 6-9, 2008.
- Montes-Iturrizaga R., Heredia-Zavoni E., Straub D., Faber, M.H. (2008). Optimum and minimum acceptable reliability indexes for mooring lines design in FPSO systems. *Proceedings, IFIP'08 WG7.5 Working Conference*, Mexico City, Mexico, August 6-9, 2008.
- Maes M.A., Dann M.R., Faber M.H. (2008). Hierarchical Bayes Analysis of Rare Events Using High-dispersion Poisson Mixtures. *Proceedings, OMAE2008 27th International Conference on Offshore Mechanics and Arctic Engineering*, Estoril, Portugal, June 15-20, 2008, [OMAE2008-57197], CD 8pp.
- Nishijima K., Faber M.H., Maes M.A. (2008). Probabilistic Assessment of Extreme Events Subject to Epistemic Uncertainties. *Proceedings, OMAE2008 27th International Conference on Offshore Mechanics and Arctic Engineering*, Estoril, Portugal, June 15-20, 2008, [OMAE2008-57172], CD 8pp.
- Thiemig C., Schubert M., Pinnekamp J., Faber M.H. (2008). Modeling of a Membrane Bioreactor using Bayesian Probabilistic Networks. *Proceedings, IWA Regional Membrane Conference*, Moscow, Russia, June 2-4, 2008.
- Schubert M., Faber M.H. (2008). On the Modeling and Analysis of Robustness of Structures. *Proceedings, EM08 Inaugural International Mechanics Institute Conference*, Minneapolis, USA, May 18-21, 2008, CD 9pp.
- Nishijima K., Graf M., Faber M.H. (2008). From Near-Real-Time Information Processing to Near-Real-Time Decision Making in Risk Management of Natural Hazards. *Proceedings, EM08 Inaugural International Mechanics Institute Conference*, Minneapolis, USA, May 18-21, 2008, CD 7pp.
- Mojsilovic N., Faber M.H. (2008). Probabilistic Model Framework for the Design of Structural Masonry. *Proceedings, EM08 Inaugural International Mechanics Institute Conference*, Minneapolis, USA, May 18-21, 2008, CD 7pp.
- Qin J., Faber M.H. (2008). A Multi-State Components Approach to Life-Cycle Optimization of Engineered Facilities. *Proceedings, EM08 Inaugural International Mechanics Institute Conference*, Minneapolis, USA, May 18-21, 2008, CD 8pp.
- Narasimhan H., Faber M.H. (2008). Evaluation of Structural Robustness for High Rise Buildings. *Proceedings, EM08 Inaugural International Mechanics Institute Conference*, Minneapolis, USA, May 18-21, 2008, CD 8pp.

2007

- Faber M.H. (2007). On Temporal and Spatial Probabilistic Engineering Modeling. In: *"Aspects of Structural Reliability – In Honor of R. Rackwitz"*, eds. M.H. Faber, T. Vrouwenvelder and K. Ziich, Förderverein Massivbau der TU München e.V., December 2007, pp. 37-54.
- Von Radowitz B., Schubert M., Faber M.H. (2007). Robustness of externally and internally post-tensioned bridges. *Proceedings, 5th International Probabilistic Workshop*, Ghent, Belgium, November 28-29, 2007, pp. 81-95.

2007

- Faber M.H., Bayraktarli Y.Y., Nishijima K. (2007). Recent developments in the management of risks due to large scale natural hazards. *Proceedings, SMIS XVI. Mexican National Conference on Earthquake Engineering*, Ixtapa, Guerrero, Mexico, October 31-November 3, 2007, CD 29pp.
- Faber M.H. (2007). Assessing and Managing Risks due to Natural Hazards. *Proceedings, ISGSR2007 First International Symposium on Geotechnical Safety & Risk*, Shanghai, China, October 18-19, 2007.
- Faber M.H. (2007). Recent Advances in Risk Assessment of Engineered Facilities. *Proceedings, CERUP International Conference "Risk Management in Production Activities"*, Porto, Portugal, October 10-12, 2007, available online: www.cerup.org, 20pp.
- Faber M.H., Maes M.A., Baker J.W., Vrouwenvelder T., Takada T. (2007). Principles of risk assessment of engineered systems. In: *Proceedings, ICASP10 10th International Conference on Applications of Statistics and Probability in Civil Engineering*, Tokyo, Japan, July 31-August 3, 2007, eds. J. Kanda, T. Takada and H. Furuta, Taylor & Francis Group, London, 2007, pp. 33-34, paper on CD.
- Vrouwenvelder T., Faber M.H. (2007). Practical methods of structural reliability. In: *Proceedings, ICASP10 10th International Conference on Applications of Statistics and Probability in Civil Engineering*, Tokyo, Japan, July 31-August 3, 2007, eds. J. Kanda, T. Takada and H. Furuta, Taylor & Francis Group, London, 2007, pp. 35-36, paper on CD.
- Nishijima K., Faber M.H. (2007). On structural performance vs. societal economic growth. In: *Proceedings, ICASP10 10th International Conference on Applications of Statistics and Probability in Civil Engineering*, Tokyo, Japan, July 31-August 3, 2007, eds. J. Kanda, T. Takada and H. Furuta, Taylor & Francis Group, London, 2007, pp. 61-62, paper on CD.
- Schubert M., Faber M.H. (2007). Robustness of infrastructures subject to rare events. In: *Proceedings, ICASP10 10th International Conference on Applications of Statistics and Probability in Civil Engineering*, Tokyo, Japan, July 31-August 3, 2007, eds. J. Kanda, T. Takada and H. Furuta, Taylor & Francis Group, London, 2007, pp. 317-318, paper on CD.
- Bayraktarli Y.Y., Faber M.H. (2007). Value of information analysis in earthquake risk management. In: *Proceedings, ICASP10 10th International Conference on Applications of Statistics and Probability in Civil Engineering*, Tokyo, Japan, July 31-August 3, 2007, eds. J. Kanda, T. Takada and H. Furuta, Taylor & Francis Group, London, 2007, pp. 409-410, CD.
- Nishijima K., Faber M.H. (2007). A Bayesian framework for typhoon risk management. *Proceedings, ICWE 12 12th International Conference on Wind Engineering*, Cairns, Australia, July 1-6, 2007, Volume 2, pp. 1959-1966.
- Maes M.A., Faber M.H. (2007). Spatial effects in risk-based design and maintenance of pipelines. *Proceedings, OMAE2007 26th International Conference on Offshore Mechanics and Arctic Engineering*, San Diego, USA, June 10-15, 2007, [OMAE2007-29164], CD 8pp.
- Maes M.A., Faber M.H. (2007). Hierarchical approach to reliability-based inspection planning of hull structures. *Proceedings, COMPIT'07 Cortona*, Italy, April 23-25, 2007, ISBN 88-7617-002-2 published by INSEAN, pp. 60-72.
- Faber M.H. (2007). Framework for risk assessment of structural systems. In: *Proceedings, COST C26 Workshop "Urban Habitat Constructions under Catastrophic Events"*, eds. F. Wald, F. Mazzolani, M. Byfield, D. Dubina, M.H. Faber, Prague, CZ, March 30-31, 2007, pp. 359-367.
- Nishijima K., Maes M.A., Goyet J., Faber M.H. (2007). Optimal Reliability of Components of Complex Systems Using Hierarchical System Models. *Electronic Proceedings, Stanford Conference on "Risk acceptance and communications"*, Palo Alto, USA, March 26-27, 2007.
- Schubert M., Faber M.H., Baker J.W. (2007). Decision making subject to aversion of low frequency high consequences events. *Electronic Proceedings, Stanford Conference on "Risk acceptance and communications"*, Palo Alto, USA, March 26-27, 2007.

2006

- Malioka V., Leemann A., Hoffmann C., Faber M.H. (2006). Durability Performance Acceptance Criteria for Concrete Structures. *Proceedings, LCC5 5th International Workshop on Life-Cycle Cost Analysis & Design of Civil Infrastructure Systems*, Seoul, South Korea, Oct. 16-18, 2006.
- Baker J.W., Faber M.H. (2006). Sampling strategies to detect threshold excursions in random fields. *Proceedings, 13th IFIP TC7 WG 7.5 Working Conference on "Reliability and Optimization of Structural Systems"*, Kobe, Japan, October 11-14, 2006.
- Nishijima K., Faber M.H. (2006). Optimal condition assessment of multiple semi-identical components. *Proceedings, 13th IFIP TC7 WG 7.5 Working Conference on "Reliability and Optimization of Structural Systems"*, Kobe, Japan, October 11-14, 2006.

PUBLICATIONS (2005-2009)

CONFERENCE PAPERS (REFEREED)

2006

- Bayraktarli Y.Y., Yazgan U., Dazio A., Faber M.H. (2006). Capabilities of the Bayesian probabilistic networks approach for earthquake risk management. *Proceedings, ECEES First European Conference on Earthquake Engineering and Seismology*, Geneva, Switzerland, September 3-8, 2006, paper No. 1458, p. 24.
- Buchheister J., Bayraktarli Y.Y., Laue J., Faber M.H. (2006). Uncertainties in a deterministic and probabilistic approach on liquefaction susceptibility. *Proceedings, ECEES First European Conference on Earthquake Engineering and Seismology*, Geneva, Switzerland, September 3-8, 2006, paper No. 1011, p. 297.
- Köhler J., Faber M.H. (2006). The JCSS Probabilistic Model Code for Timber – Examples and Discussion. *Proceedings, WCTE 9th World Conference of Timber Engineering*, Portland, Oregon, USA, August 6-10, 2006.
- Nishijima K., Faber M.H. (2006). A Budget Management Approach for Societal Infrastructure Projects. *Proceedings, IABMAS'06 3rd International Conference on Bridge Maintenance, Safety and Management*, Porto, Portugal, July 16-19, 2006.
- Faber M.H., Fang D. (2006). Construction Safety & Health in the Framework of Civil Engineering Risk Assessment. *Proceedings, CIB W99 International Conference on Global Unity for Safety & Health in Construction*, Beijing, China, June 28-30, 2006.
- Faber M.H., Maes M.A., Straub D., Baker J.W. (2006). On the Quantification of Robustness of Structures. *Proceedings, OMAE2006 25th International Conference on Offshore Mechanics and Arctic Engineering*, Hamburg, Germany, June 4-9, 2006, [OMAE2006-92095].
- Straub D., Goyet J., Sørensen J.D., Faber M.H. (2006). Benefits of Risk Based Inspection Planning for Offshore Structures. *Proceedings, OMAE2006 25th International Conference on Offshore Mechanics and Arctic Engineering*, Hamburg, Germany, June 4-9, 2006, [OMAE2006-92089].
- Montes-Iturrizaga R., Heredia-Zavoni E., Marcial-Martínez E., Faber M.H., Straub D., De la O J. (2006). Risk Based Structural Integrity Management Using Bayesian Probabilistic Nets. *Proceedings, OMAE2006 25th International Conference on Offshore Mechanics and Arctic Engineering*, Hamburg, Germany, June 4-9, 2006, [OMAE2006-92576].
- Maes M.A., Faber M.H. (2006). Probabilistic interpretation of robustness for structural systems. *Proceedings, PSAM8 International Conference on Probabilistic Safety Assessment and Management*, New Orleans, USA, May 14-19, 2006, Paper 0324.
- Faizian M., Schalcher H.R., Faber M.H. (2006). Consequence Assessment in Earthquake Risk Management using Indicators. *Proceedings, 8th U.S. National Conferences on Earthquake Engineering*. San Francisco, USA, April 18-22, 2006.

2005

- Faber M.H., et al. (2005). Sustainable Management of Natural Hazards in the Region of South-East Asia and South Asia. *Proceedings, International Symposium "Disaster Reduction on Coasts"*, Melbourne, Australia, November 14-16, 2005.
- Köhler J., Sørensen J.D., Faber M.H. (2005). Probabilistic Modeling of Timber Structures. *Proceedings, International Conference on Probabilistic Models in Timber Engineering*, Arcachon, France, September 8-9, 2005.
- Faber M.H., Maes M.A. (2005). Epistemic Uncertainties and System Choice in Decision Making. In: *Proceedings, ICOSSAR'05 9th International Conference on Structural Safety and Reliability*, eds. G. Augusti, G.I. Schuëller and M. Ciampoli, Rome, Italy, June 19-23, 2005, pp. 3519-3526.
- Bayraktarli Y.Y., Ulfkjaer J.-P., Yazgan U., Faber M.H. (2005). On the Application of Bayesian Probabilistic Networks for Earthquake Risk Management. In: *Proceedings, ICOSSAR'05 9th International Conference on Structural Safety and Reliability*, eds. G. Augusti, G.I. Schuëller and M. Ciampoli, Rome, Italy, June 19-23, 2005, pp. 3505-3512.
- Schubert M., Straub D., Faber M.H. (2005). Reliability of rock fall protection galleries – A case study with a special focus on the uncertainty modeling. In: *Proceedings, ICOSSAR'05 9th International Conference on Structural Safety and Reliability*, eds. G. Augusti, G.I. Schuëller and M. Ciampoli, Rome, Italy, June 19-23, 2005, pp. 1333-1340.
- Sørensen J.D., Straub D., Faber, M.H. (2005). Generic Reliability-Based Inspection Planning for Fatigue Sensitive Details – with Modification of Fatigue Load. In: *Proceedings, ICOSSAR'05 9th International Conference on Structural Safety and Reliability*, eds. G. Augusti, G.I. Schuëller and M. Ciampoli, Rome, Italy, June 19-23, 2005, pp. 1063-1070.

PUBLICATIONS (2005-2009)
CONFERENCE PAPERS (REFEREED)

2005

- Straub D., Faber M.H. (2005). Reliability Updating for Structures Subject to Localized Corrosion Defects. In: *Proceedings, ICOSSAR'05 9th International Conference on Structural Safety and Reliability*, Rome, Italy, June 19-23, 2005, eds. G. Augusti, G.I. Schuëller and M. Ciampoli, pp. 843-850.
- Faber M.H., Maes M.A. (2005). Epistemic Uncertainties in Decision Making. *Proceedings, OMAE2005 24th International Conference on Offshore Mechanics and Arctic Engineering*, Halkidiki, Greece, June 12-17, 2005, [OMAE2005-67241].
- Chakrabarti P., Abu-Odeh I., Mukkamala A., Majumdar B., Faber M.H., Straub D., De la O J. (2005). An Overview of the Reassessment Studies of Fixed Offshore Platforms in the Bay of Campeche, Mexico. *Proceedings, OMAE2005 24th International Conference on Offshore Mechanics and Arctic Engineering*, Halkidiki, Greece, June 12-17, 2005, [OMAE2005-67051].
- Straub D., Faber M.H. (2005). Temporal Variability in Corrosion Modeling and Reliability Updating. *Proceedings, OMAE2005 24th International Conference on Offshore Mechanics and Arctic Engineering*, Halkidiki, Greece, June 12-17, 2005, [OMAE2005-67199].
- Faber M.H., Straub D., Chakrabarti P., Abu-Odeh I., De la O J. (2005). Fatigue Analysis and Risk Based Inspection Planning for Life Extension of Fixed Offshore Platforms. *Proceedings, OMAE2005 24th International Conference on Offshore Mechanics and Arctic Engineering*, Halkidiki, Greece, June 12-17, 2005, [OMAE2005-67229].
- Faber M.H., Maes M.A. (2005). On Applied Engineering Decision Making for Society. In: *Proceedings, 12th IFIP WG7.5 Working Conference on Reliability and Optimization of Structural Systems*, Aalborg, May 22-25, 2005, eds. Dan M. Frangopol & John D. Sørensen.
- Maes M.A., Faber M.H. (2005). Updating utilities and reconciling expert opinion. In: *Proceedings, 12th IFIP WG7.5 Working Conference on Reliability and Optimization of Structural Systems*, Aalborg, Denmark, May 22-25, 2005, eds. Dan M. Frangopol & John D. Sørensen.
- Nishijima K., Straub D., Faber M.H. (2005). The Effect of Changing Decision Makers on the Optimal Service Life Design of Concrete Structures. In: *Proceedings, 4th International Workshop on Life-Cycle Cost Analysis and Design of Civil Infrastructures Systems*, eds. A.S. Nowak and Dan M. Frangopol, Cocoa Beach, Florida, USA, May 8-11, 2005, pp. 325-333.
- Zhou J.F., Li D.Q., Faber M.H. (2005). Reliability Assessment and Acceptance Criteria for Steel Gate Structures subjected to Corrosion Deterioration. In: *Proceedings, 4th International Workshop on Life-Cycle Cost Analysis and Design of Civil Infrastructures Systems*, eds. A.S. Nowak and Dan M. Frangopol, Cocoa Beach, Florida, USA, May 8-11, 2005, pp. 299-306.

MONOGRAPHS

- Proceedings of Joint workshop of Cost Actions TU0601 and E55, Ljubljana, Slovenia, September 21-22, 2009. Eds. J. Köhler, H. Narasimhan and M.H. Faber, European Science Foundation: COST EU RTD Framework Programme, ISBN 978-3-909386-29-1, *in print*.
- Methodik zur vergleichenden Risikobeurteilung. Eds. M.H. Faber, J. Köhler, M. Schubert, E. Sabiote, C. Fermaud, A. Scheiwiller. Forschungsauftrag AGB 2005/102 auf Antrag der Arbeitsgruppe Brückenforschung, UVEK, Bundesamt für Strassen, Report No. 618, *in print*.
- Ermittlung des Netzrisikos. Eds. C. Fermaud, C. Willi, J. Köhler, M. Schubert and M.H. Faber. Forschungsauftrag AGB 2005/103 auf Antrag der Arbeitsgruppe Brückenforschung, UVEK, Bundesamt für Strassen, Report No. 619, *in print*.
- Beurteilung von Risiken und Kriterien zur Festlegung akzeptierter Risiken in Folge aussergewöhnlicher Einwirkungen bei Kunstbauten. Eds. M. Schubert and M.H. Faber, Forschungsauftrag AGB 2002/020 auf Antrag der Arbeitsgruppe Brückenforschung, UVEK, Bundesamt für Strassen, Report No. 616, June 2009, 318pp.
- Risk Acceptance and Risk Communication. *Structural Safety*, 31(2), March 2009, pp. 97-212. Special ed. M.H. Faber, Stanford Conference on "Risk acceptance and communications", Stanford University, Palo Alto, USA, March 26-27, 2007, Elsevier.
- Lecture notes on "Risk and Safety in Civil, Environmental and Geomatic Engineering". Ed. M.H. Faber, October 2008, 336pp, <http://www.ibk.ethz.ch/fa/>.
- "Risk Assessment in Engineering: Principles, System Representation & Risk Criteria". Ed. M.H. Faber, JCSS Web-publication, ISBN 978-3-909386-78-9, June 2008, 35pp, <http://www.jcss.ethz.ch>.

PUBLICATIONS (2005-2009)

MONOGRAPHS

- Proceedings of COST Action TU0601 Workshop "Robustness of Structures", Zurich, Switzerland, February 04-05, 2008. Ed. M.H. Faber, European Science Foundation: COST EU RTD Framework Programme, ISBN 978-3-909386-83-3, March 2008, 190pp.
- "Aspects of Structural Reliability – In Honor of R. Rackwitz". Eds. M.H. Faber, T. Vrouwenvelder and K. Zilch, Förderverein Massivbau der TU München e.V., Herbert Utz Verlag, ISBN 978-3-8316-0752-5, December 2007, 123pp.
- Proceedings of COST Action C26 Workshop "Urban Habitat Constructions under Catastrophic Events", Prague, Czech Republic, March 30-31, 2007. Eds. F. Wald, F. Mazzolani, M. Byfield, D. Dubina and M.H. Faber, ISBN 978-80-01-03583-2, European Science Foundation: COST EU RTD Framework Programme, March 2007, 386pp.
- "Probabilistic Model Code". JCSS Web-publication, ISBN 978-3-909386-79-6, January 2007, <http://www.jcss.ethz.ch>.
- "Streuung der Betoneigenschaften in Bauwerken - Variability of concrete properties in structures". Eds. V. Malioka, M.H. Faber, A. Leemann and C. Hoffman, UVEK, Bundesamt für Strassen, Report No. 611, December 2006, 68pp.

RESEARCH REPORTS AND OTHER PUBLICATIONS

- Faber M.H., Maes M.A. (2009). Sustainable strategic and operational management of life safety. *Proceedings, IFED 4th International Forum on Engineering Decision Making*, Hakone, Japan, May 13-16, 2009, www.ifed.ethz.ch.
- Nishijima K., Faber M.H. (2009). A macroeconomic decision framework for sustainable design and maintenance policy making for civil infrastructure. *Proceedings, IFED 4th International Forum on Engineering Decision Making*, Hakone, Japan, May 13-16, 2009, www.ifed.ethz.ch.
- Faber M.H., Galmarini C. (2008). Qualitätssicherung von Ingenieurdienstleistungen. *tec21 – SIA*, Nr.46 / 10. November 2008, pp. 22-26.
- Schubert M., Faber M.H. (2008). Characterization of Design Impact Loads for Rockfall Protection. *Proceedings, Interdisciplinary Workshop on Rockfall Protection*, Morschach, Switzerland, June 23-25, 2008, pp. 105-107.
- Nishijima K., Faber M.H. (2007). Societal optimal performance of infrastructure subject to natural hazards. *Proceedings, IFED 3rd International Forum on Engineering Decision Making*, Port Stephens NSW, Australia, December 12-15, 2007, www.ifed.ethz.ch.
- Bayraktarli Y.Y., Faber M.H. (2007). Bayesian network approach for managing earthquake risks of cities. *Proceedings, IFED 3rd International Forum on Engineering Decision Making*, Port Stephens NSW, Australia, December 12-15, 2007, www.ifed.ethz.ch.
- Graf M., Nishijima K., Faber M.H. (2007). Bayesian updating in natural hazard risk assessment. *Proceedings, IFED 3rd International Forum on Engineering Decision Making*, Port Stephens NSW, Australia, December 12-15, 2007, www.ifed.ethz.ch.
- Faber M.H., Schubert M. (2007). Beurteilung von Restrisiken und Kriterien zur Festlegung akzeptierter Risiken in Folge aussergewöhnlicher Einwirkungen bei Kunstbauten. *SIA Dokumentation D0223, "Neues aus der Brückenforschung"*, 4. ASTRA/FBH Tagung, Bern, Switzerland, 20.11.2007, pp. 123-132.
- Baker J.W., Bayraktarli Y.Y., Faber M.H. (2006). Accounting for soil spatial variability when assessing liquefaction risk. *Proceedings, IFED 2nd International Forum on Engineering Decision Making*, Lake Louise, Canada, April 26-29, 2006, www.ifed.ethz.ch.
- Nishijima K., Faber M.H. (2006). Optimal proof load testing of large quasi-identical component systems. *Proceedings, IFED 2nd International Forum on Engineering Decision Making*, Lake Louise, Canada, April 26-29, 2006, www.ifed.ethz.ch.
- Faber M.H. (2006). Risikobeurteilung bei Bauten: Optimalen Grad an Sicherheit finden. Interview „*baublatt*“, Nr. 4, 13. Januar 2006, pp. 2-4.
- Baker J.W., Straub D., Nishijima K., Faber M.H. (2005). *On the Assessment of Robustness I: A General Framework*. International Workshop "Robustness of Structures", Garston, Watford, United Kingdom, November 28-29, 2005, <http://www.jcss.ethz.ch/>.
- Schubert M., Straub D., Baker J.W., Faber M.H. (2005). *On the Assessment of Robustness II: Numerical Investigations*. International Workshop "Robustness of Structures", Garston, Watford, United Kingdom, November 28-29, 2005, <http://www.jcss.ethz.ch/>.