

Verena HAGSPIEL, PhD

CONTACT INFORMATION

Department of Industrial Economics and Technology Management,
Norwegian University of Science and Technology,
Office nr. 1146, Alfred Getz' vei 3,
7491 Trondheim, Norway

Civil status: Married

Nationality: Austrian

E-mail: verena.hagspiel@iot.ntnu.no

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PROFESSIONAL EXPERIENCE

Associate Professor of Finance **August 2013 - present**

Department of Industrial Economics and Technology Management,
Norwegian University of Science and Technology

Postdoctoral Research Fellow *August 2012 - July 2013*

Département des Opérations, HEC, Université de Lausanne

Postdoctoral Research Fellow *October 2011 - July 2012*

Instituto Superior Técnico and CEMAT, Lisbon

EDUCATION

PhD Economics **09/2008-12/2011**

Tilburg University, The Netherlands

Visiting graduate student **09/2009- 12/2009**

Anderson School of Management, University of California, Los Angeles
Sponsoring Professor: Prof. Eduardo S. Schwartz

Dipl.-Ing. Technical Mathematics **10/2003-07/2008**

(MSc and BSc equiv.)
Technische Universität Graz, Graz, Austria

MSc in Quantitative Finance and Actuarial Sciences **08/2006-08/2007**

Tilburg University, The Netherlands

RESEARCH FIELDS

Industrial Organization, Microeconomics, Operations Management,
Mathematical Finance, Real Options, Investment under Uncertainty

PUBLICATIONS

Stepwise Investment and Capacity Sizing under Uncertainty, M. Chronopolous, V. Hagspiel, S.-E. Fleten, accepted at *OR Spectrum*, 2016.

Investment in mutually exclusive transmission projects under policy uncertainty, I. Bakke, S.-E. Fleten, L. I. Hagfors, V. Hagspiel, B. Norheim, *Journal of Commodity Markets*, Volume 3, Issue 1, September 2016, Pages 54-69.

Valuing quantity flexibility under supply-chain disintermediation risk, I. Bicer, V. Hagspiel, *International Journal of Production Economics*, Volume 180, October 2016, Pages 1-15.

How to Escape a Declining Market: Capacity Investment or Exit?, V. Hagspiel, K.J.M. Huisman, P.M. Kort, C. Nunes, *European Journal of Operational Research*, Volume 254, Issue 1, 1 October 2016, Pages 40-50.

Volume Flexibility and Capacity Investment under Demand Uncertainty, V. Hagspiel, K.J.M. Huisman, P. M. Kort, *International Journal of Production Economics*, Volume 178, August 2016, Pages 95-108.

Investment in Electric Energy Storage Under Uncertainty: A Real Options Approach, I. Bakke, S.-E. Fleten, L. I. Hagfors, V. Hagspiel, B. Norheim, S. Wogrin, *Computational Management Science*, July 2016, Volume 13, Issue 3, pp 483500.

Stepwise Green Investment under Policy Uncertainty, M. Chronopoulos, V. Hagspiel, S.-E. Fleten, *The Energy Journal*, forthcoming in Volume 37 (4), 2016.

Dedicated vs product flexible production technology: Strategic capacity investment choice, H.J. Boonman, V. Hagspiel, P.M. Kort, *European Journal of Operational Research*, Volume 244, Issue 1, 1 July 2015, Pages 141-152.

Optimal technology adoption when the arrival rate of new technologies changes, Verena Hagspiel, Kuno J.M. Huisman, Cludia Nunes, *European Journal of Operational Research*, Volume 243, Issue 3, 16 June 2015, Pages 897-911.

Valuing Lead Time, Suzanne de Treville, Isik Bicer, Valrie Chavez-Demoulin, Verena Hagspiel, Norman Schürhoff, Christophe Tasserit and Stefan Wagner. *Journal of Operations Management*, Volume 32, Issue 6, September 2014, Pages 337-346.

Flexibility in Technology Choice: A Real Options Approach, Verena Hagspiel. *Dissertation series CentER*, Tilburg University, 2011

WORKING PAPERS Switching from Oil to Gas Production - Decisions in a Field's Tail
(with Kristian Støre, Stein-Erik Fleten and Cláudia Nunes)

Sensitivity of Demand Function Choice in a Strategic Real Options Context
(with Hettie Boonman)

Optimal Investment Strategies for Product-Flexible and Dedicated Production Systems under Demand Uncertainty

The Value of Reducing Lead Time Under Demand Shocks
(with Isik Bicer and Suzanne de Treville)

Disruptive Innovation in a Declining Market
(with K.J.M Huisman, P. M. Kort, C. Nunes and R. Pimentel)

SELECTED WORK Capacity Optimization for Innovating Firms
IN PROGRESS (V. Hagspiel, K.J.M Huisman, P. M. Kort, C. Nunes, R. Pimentel)

Transmission and Power Generation Investment under Uncertainty
(with Nora S. Middttun, Jannicke S. Sletten and Afzal Siddiqui)

WORK WITH
INDUSTRY

Collaboration on student and research projects with industrial partners from the Norwegian energy industry.

Presentation ‘*Real option analysis: Applications in a new energy field*’ at Produksjonsteknisk konferanse 2015.

Collaboration on several industrial projects under the direction of Prof. Suzanne de Treville with companies from food sector, automotive and pharmaceutical industry.

Recognition for contributing to the development of the CDF tool as a member of OpLab team at the University of Lausanne

- Description of the CDF tool: <http://acetool.commerce.gov/inventory>
- Public release by the White House mentioning our efforts at the University of Lausanne:
<http://www.whitehouse.gov/the-press-office/2014/10/03/fact-sheet-president-obama-announces-new-manufacturing-innovation-institute>

TEACHING
EXPERIENCE

Instructor (Graduate) and Course Coordinator, Corporate Finance, NTNU, Fall 2013 - present

Instructor (Graduate), Project Evaluation and Financing (Derivative Markets), NTNU, Spring 2014 - present

Instructor (Graduate), Production and Network Economics, NTNU, Spring 2014

Teaching assistant, Introduction to Finance, Tilburg University, Spring 2010 & 2011

Teaching assistant, Mathematics 1, Tilburg University, Fall 2008

Teaching assistant, Analysis for Engineers 2, TU Graz, Spring 2006

Teaching assistant, Analysis for Engineers 1, TU Graz, Fall 2005

PHD STUDENTS

Hettie Boonman, Co-supervision together with Prof. Peter Kort, Tilburg University (graduated December 2014)

Lars Ivar Hagfors, Co-supervision, NTNU

DOCTORAL
COMMITTEES

Maria Lavrutich, PhD Tilburg University, The Netherlands, 2016

ADVISING

Research Master's Thesis:

2011: Hettie Boonman Tilburg University

Master's Thesis:

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|-------|--|--------------------------------------|
| 2016: | Peder A. Olsen Dalby, Gisle R. Gillerhaugen
and Tord Leth-Olsen | NTNU |
| | Andrea Stephansen and Stine C. Stangeland Sæle | NTNU |
| | Jørgen Bjørnstad Engh and Lars M. Eeg Ødegaard | NTNU |
| | Ulrik D. Mannhart | NTNU |
| 2015: | Nora S. Midttun and Jannicke S. Sletten | NTNU |
| | Jørgen Hannevik, Magnus Naustdal
and Henrik Struksnæs, | NTNU |
| | Ida Bakke and Beate Norheim | NTNU |
| | Silje Johannessen | NTNU |
| 2014: | Diana Colangelo | Università Cattolica del Sacro Cuore |
| | Martin P. Fredriksen, Bjørn Erik G. Heiberg
and Jørgen T. Moltu | NTNU |
| | Caroline Heggelund and Ida O'Sullivan Myran, | NTNU |
| | Anja Graff Nesse and Frida Næss-Ulseth | NTNU |
| | Inês Leitão | University of Lisbon |
| 2012: | Pedro Jesus | Instituto Superior Técnico |
| | Verónica Martins | Instituto Superior Técnico |
| 2010: | Hettie Boonman | Tilburg University |
| | H. Giang Bui | Tilburg University |

REFEREEING

Journal of Economic Dynamics and Control, European Journal of Operational Research,
Economics Research International, Central European Journal of Operations Research,
Journal of Banking and Finance, International Journal of Production Economics

INVITED SEMINARS AND CONFERENCE PRESENTATIONS	<p>2016 Annual International Conference on Real Options, Tilburg University (Operations Research Seminar Series)</p> <p>2015 INFORMS Annual Meetings; Nordic Environmental Social Science Conference 2015; 11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics; Instituto Superior Técnico Lisboa (Probability and Statistics Seminar);</p> <p>2014 INFORMS Annual Meetings; International Symposium on Dynamic Games and Applications; International Conference on Computational Management Science;</p> <p>2013 INFORMS Annual Meetings; Instituto Superior Técnico Lisboa (Probability and Statistics Seminars); Norwegian School of Economics (Department of Business and Management); Aarhus University; Norwegian University of Science and Technology; International Conference on Computational Management Science;</p> <p>2012 Carnegie Mellon University (Probability and Computational Finance Seminars); Winter School of Mathematical Finance, EPFL and University of Lausanne (IBF Brown Bag Seminar); Instituto Superior Técnico (Probability and Statistics Seminars); Viennese Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics</p> <p>2011 Tilburg University (Operations Research Seminars); INFORMS Annual Meeting; ISEG School of Economics and Management; Norwegian University of Science and Technology; Annual International Conference on Real Options; Tilburg University (GSS Multidisciplinary Workshops & Economics Workshop); Instituto Superior Técnico (Probability and Statistics Seminars)</p> <p>2010 Finance Conference of Portuguese Finance Network; Tilburg University (GSS Multidisciplinary Workshops); 11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics; Annual International Conference on Real Options</p> <p>2009 Annual International Conference on Real Options; Workshop on Operating Uncertainty using Real Options; Economics and Finance PhD Student Conference; EARIE Conference;</p>
RESEARCH VISITS	<p>March 2012 Carnegie Mellon University, Department of Mathematical Sciences, Pittsburgh, United States <i>host: Dmitry Kramkov</i></p> <p>May 2011 Instituto Superior Técnico, Department of Mathematics, Lisbon, Portugal</p> <p>January 2010 Instituto Superior Técnico, Department of Mathematics, Lisbon, Portugal</p>
DEPARTMENT SERVICE	<p>Member of the EurOMA 2016 conference organization committee 2015-2016</p> <p>Administrator of PhD assessment committee for Steinar S. Veka 2015</p>
GRANTS	<p>Gender equality starter kit, NTNU, 2013 (NOK 300000)</p> <p>Postdoctoral research grant, 2011 (Euro 18000)</p> <p>CentER oversea research grant, 2009 (Euro 5000)</p>
ADDITIONAL PROFESSIONAL EXPERIENCE	<p><i>Teaching Assistant</i>, Department of Mathematics, Graz University of Technology October 2005 - July 2006</p> <p><i>Internship</i>, Raiffeisen Bank Raaba, July 2005</p>
ADDITIONAL EXPERIENCE	<p>NTNU's Educational Program for New Academic Staff (PEDUP) (2014-2015)</p> <p>UT-Austin Portugal Summer School and Workshop in Mathematics (2012)</p> <p>Organization of Real Options Workshop, Tilburg University (2011)</p> <p>Presentation Skills Training, Tilburg University (2010)</p>

Teacher Training Course for PhD-Students and Junior Lecturers (2009)
Winter school on Mathematical Finance, Lunteren, Netherlands (2009, 2011 & 2012)

ADDITIONAL
INFORMATION

Gender: female
Year of birth: 1985
Languages: German (native), English (fluent), Dutch (fluent)
Norwegian (NTNU exam Trinn 3, European level C1)
French, Italian (intermediate)
Hobbies: Cross Country Skiing, High-intensity Interval Training,
Mountaineering, Alpine Skiing

Last updated: November, 2016