TIMO LOHMANN

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EDUCATION

THE COLORADO SCHOOL OF MINES, USA   *Expected Dec 2014*
Ph.D. Candidate in Operations Research with Engineering   GPA: 3.96/4.00
Selected Classes: Advanced Linear Programming, Stochastic Programming, Spatial Statistics, Industrial Organization
Research Interests: Energy systems modeling and optimization, stochastic optimization, decomposition methods
Awards: Department of Economics and Business full-ride scholarship
Positions: Instructor and Teaching Assistant for several graduate and undergraduate level operations research related courses.

BRAUNSCHWEIG UNIVERSITY OF TECHNOLOGY, Germany   *Mar 2011*
Master of Science in Financial and Industrial Mathematics   GPA: 3.60/4.00
Selected Classes: Advanced Discrete Optimization, Advanced Linear Optimization, Financial Mathematics, Production Management, Logistics Management, Risk & Portfolio Management, Theoretical Mathematics
Master Thesis: Practical Stochastic Programming using Algebraic Modeling Systems
Awards: Master Thesis Award of the Society for Operations Research (Gesellschaft für Operations Research e.V.) (2011).

PROFESSIONAL EXPERIENCE

WOOD MACKENZIE, Annapolis MD, USA   *May 2014 – Jul 2014*
Metals & Mining Research Operations Intern
- Documented and revised Wood Mackenzie's North America long-term thermal coal optimization model;
- Developed Wood Mackenzie's China long-term thermal coal model based on the above model, generalizing North American-specific components and implementing new components tailored towards the Chinese domestic market.

GAMS DEVELOPMENT CORPORATION, Washington DC, USA   *Mar 2011 – Jun 2011*
Software Engineering Intern
- Calibrated trade data for 32 agricultural goods across 15 regions using an Entropy model approach;
- Extended the USDA Economic Research Service bilateral trade model into a multilateral one, allowing policy makers to simulate the impact of policy changes on the supply, demand, trade balances and prices of the various goods.

BASF – THE CHEMICAL COMPANY, Ludwigshafen, Germany   *Jan 2010 – Jun 2010*
Internship and Master Thesis
- Extended the BASF production allocation model by introducing stochastic uncertainty into demand, enabling more informed decision making on production optimization;
- Developed 23 stochastic optimization models for different applications, these became part of the GAMS EMP library;
- Applied decomposition algorithms for stochastic hydrothermal dispatch optimization, providing a power company with insights on the optimal usage of water.

PUBLICATIONS AND WORKING PAPERS

T. Lohmann and S. Rebennack (2014), Long-Term Power Generation Expansion Planning with Short-Term Demand Response using Decomposition Methods, Colorado School of Mines, *working paper*.
G. Steeger, T. Lohmann and S. Rebennack (2014), Strategic Bidding for a Single Price-Maker Hydro-Electric Producer: Stochastic Dual Dynamic Programming paired with Lagrangian Relaxation, Colorado School of Mines, *under revision*.
T. Lohmann, A.S. Hering, and S. Rebennack (2014), Hydro Forecasting of Multireservoir Inflows for Hydro-Thermal Scheduling, *submitted*.
M. Bussieck, M. Ferris, and T. Lohmann (2012), GUSS: Solving collections of data related models within gams, in *Algebraic Modeling Systems*, *Applied Optimization*, vol. 104, edited by J. Kallrath, pp. 35-56, Springer.

SKILLS

Computer: GAMS, R, C/C++/C#, MS Office, MS Access, MS Visio, LaTeX
Languages: English, German (Fluent), French (Basic)
Hobbies: Weight lifting, skiing, discovery travelling, reading novels