

## Assoz.-Prof. Mag. Mag. Stefan Haeussler, PhD

### Contact Information

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Department of Information Systems,  
Production and Logistics Management  
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### EDUCATION

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- 2020            **Habilitation for Business Administration**  
*University of Innsbruck*  
Cumulative Habilitation: *Applicability and Refinements of Quantitative Operations Management Models for Order Release Planning and Beyond.*
- 2009 – 2014   **Ph.D. Management**  
*University of Innsbruck*  
Committee: Martin Grunow (Technical University of Munich), Hubert Missbauer (University of Innsbruck), Reha Uzsoy (North Carolina State University)  
PhD Thesis: *Comparison of two optimization based order release models with fixed and variable lead times and an empirical validation of meta-models of work centres in order release planning.*
- 2004 – 2010   **Mag. phil. Political Science**  
*University of Innsbruck*  
Committee: Reinhold Gärtner, Heinrich Neisser, Fritz Plasser (all University of Innsbruck)  
Diploma Thesis: *The African American voting behavior in the 2008 presidential elections.*
- 2004 – 2010   **Mag. rer.soc.oec. Business Administration**  
*University of Innsbruck*  
Advisor: Hubert Missbauer (University of Innsbruck)  
Diploma Thesis: *Empirical Validation of Enhanced Clearing Function Models.*
- 2007 – 2008   **Year abroad at University of New Orleans, USA.**
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WORK EXPERIENCE

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- 2020            **Associate Professor**, Department of Information Systems, Production and Logistics Management, University of Innsbruck.
- 2014 – 2020   **Assistant Professor, Department of Information Systems, Production and Logistics Management, University of Innsbruck.**  
*Ad-Hoc Reviewer* for e.g., ‘International Journal of Production Economics’, ‘International Journal of Production Research’, ‘IEEE Transactions on Semiconductor Manufacturing’.  
*Research interests and Methods*: Production planning and control, Workload Control, Scheduling, Simulation, Optimization, Regression analysis, Forecasting, Behavioral Operations Management, Machine Learning.  
*Advisor and co-advisor* of several bachelor, diploma and master theses; e.g., in cooperation with Swarovski, Liebherr-Hausgeraete Lienz GmbH, Russmedia GmbH, Audi AG, Adolf Darbo AG, Hilti AG, Voestalpine AG.  
*Research stay* at the North Carolina State University from July – October 2018.
- 2013 – 2014   **Lector at Department of Information Systems, Production and Logistics Management, University of Innsbruck.**
- 2009 – 2013   **Research assistant Praedoc, Department of Information Systems, Production and Logistics Management, University of Innsbruck.**  
*Co-advisor* of diploma, master and bachelor theses. E.g. in cooperation with companies like Swarovski, Dachser GmbH & Co. KG, Deutsche Lufthansa AG, BMW Group und Liebherr-Werk Telfs GmbH.  
*Administration and maintenance* of the IT at the department.
- In 2008        **Intern at the Austrian embassy, Washington, DC, USA**  
Political-, Cultural and Economic and Finance Departments.
- Summer  
2004 – 2006   **Internships at Kraft Foods, Bludenz, Austria.**
- Summer  
2000            **Internship at Metasys Medizintechnik GmbH, Innsbruck, Austria**
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### AWARDS/HONORS

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- 2017 Participation at the **6th Lindau Meeting on Economic Sciences**
- 2014 **Best student paper award 2014**  
*University of Innsbruck* for the publication: Haeussler, S., Missbauer, H., 2014. Empirical validation of meta-models of work centres in order release planning, *International Journal of Production Economics*, 149, 102-116.
- 2008 **Performance-based scholarship of the University of Innsbruck.**

### RESEARCH GRANTS

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- 2016 **Smartproduction 4.0. ICT als Key Enabler zur ganzheitlichen Performance-steigerung für hochinnovative Stahlprodukte, 620.000€.**  
Austrian Research Promotion Agency (FFG), Project Supervision by Prof. Missbauer, *Key member (scientific)*
- 2015 **An experimental analysis of the lead time syndrome (LTS), 19.000€.**  
Grant for young researchers from the University of Innsbruck. *Project supervision.*
- 2015 **Production smoothing in optimization based order release models. (ProdSmoothOpt), 4.000€.**  
Grant from D. Swarovski KG. *Project supervision.*

### TEACHING EXPERIENCE

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- 2019 Master Programme: 'Information Systems':  
Seminar: 'Operations Management I: IT-supported Production and Supply Chain Planning - Concepts, Methods and Software'
- 2018 Bachelor Programme:  
Lecture: 'Management of productive processes' (with Prof. Missbauer)
- Master Programme: 'Information Systems':
- Two seminars: 'Design of information systems along the value chain'
  - Seminar: 'Value-Adding Chain Processes in Organizations'
  - Lecture and seminar: 'Current Topics of Information Systems, especially Global Value Network' (with Prof. Missbauer)
- 2017 Bachelor Programme:  
Two lectures: 'Management of productive processes' (with Prof. Missbauer)
- Master Programme: 'Information Systems':
- Two seminars: 'Design of information systems along the value chain'
  - Seminar: 'Value-Adding Chain Processes in Organizations'
  - Lecture and seminar: 'Current Topics of Information Systems, especially Global Value Network' (with Prof. Missbauer)

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### 2016 Bachelor Programme:

- Lecture: ‘Management of productive processes’ (with Gabriele Traugott)
- Seminar: ‘Seminar mit Bachelorarbeit’
- Lecture: ‘Production and Logistic Management II’

### Master Programme: ‘Information Systems’:

- Seminar: ‘Design of information systems along the value chain’ (with Prof. Missbauer)
- Lecture and seminar: ‘Current Topics of Information Systems, especially Global Value Network’ (with Prof. Missbauer)

### 2015 Bachelor Programme:

- Two lectures ‘Management of productive processes’ (with Prof. Missbauer)
- Three Proseminars: ‘Management of productive processes’
- Proseminar: ‘Production and Logistic Management I’

### Master Programme: ‘Information Systems’:

- Lecture and seminar: ‘Current Topics of Information Systems, especially Global Value Network’ (with Prof. Missbauer)

2010 - 2014

### Bachelor Programme:

- 14 Proseminars: ‘Management of productive processes’
- Four Seminars: ‘Production and Logistic Management II’ (also with Dr. Thurnher)

## PEER REVIEWED PUBLICATIONS

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- 2020 Neuner, P., Haeussler, S. Rule Based Workload Control in Semiconductor Manufacturing Revisited. *International Journal of Production Research*, in press.
- Neuner, P., Haeussler, S., Imer, Q. Periodic Workload Control: A Viable Alternative for Semiconductor Manufacturing, *Proceedings of the 2020 Winter Simulation Conference*, in press.
- Haeussler, S., Stampfer, C., Missbauer, H. Comparison of two optimization-based order release models with fixed and variable lead times. *International Journal of Production Economics*, 227, in press.
- Netzer, P., Haeussler, S., Missbauer, H. Integration of Order Acceptance into Optimization Based Order Release models, *Pre-Prints of the 21th International Working Seminar on Production Economics*, 1, 1 – 16.
- 2019 Haeussler, S., Schneckenreither, M., Gerhold, C. Adaptive Order Release Planning with Dynamic Lead Times. *IFAC PapersOnLine*, 52(13), 1890-1895.
- Imer, Q., Haeussler, S., Missbauer, H. Optimal Synchronization of the Hot Rolling Stage in Steel Production. *IFAC PapersOnLine*, 52(13), 1615-1619.
- Banken, V., Imer, Q., Seeber, I., Haeussler, S. A Method for Smart Idea Allocation in Crowd-Based Idea Selection. *Decision Support Systems*, 124, in press.

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- Haeussler, S.; Netzer, P. Comparison between rule- and optimization-based workload control concepts: a simulation optimization approach. *International Journal of Production Research*, in press.
- Schneckenreither, M.; Haeussler, S. Reinforcement Learning Methods for Operations Research Applications: The Order Release Problem. *Lecture Notes in Computer Science*, 11331, 545-559.
- 2018 Hutter, T.; Haeussler, S., Missbauer, H. Successful Implementation of an Order Release Mechanism based on Workload Control: A Case Study of a Make-To-Stock Manufacturer. *International Journal of Production Research*, 56(4), 1565-1580.
- 2014 Haeussler, S., Missbauer, H. Empirical validation of meta-models of work centres in order release planning. *International Journal of Production Economics*, 149, 102-116.
- Stampfer, C., Haeussler, S., Missbauer, H. The impact of foreknowledge of demand in case of optimization based order release mechanisms in workload control: A simulation study based on a make-to-order manufacturer. *Pre-Prints of the 18th International Working Seminar on Production Economics*, 1, 427 – 440.

## PUBLICATIONS UNDER REVIEW

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- Haeussler, S., Stefan, M., Schneckenreither, M., Onay, A. The Lead Time Updating Trap: Analyzing human behavior in capacitated supply chains. Under Review in *International Journal of Production Economics*.
- Ilmer, Q., Haeussler, S., Missbauer, H. Slab assignment to non-identical reheat furnaces running in parallel mode. Under Review in *International Journal of Production Research*.
- Schneckenreither, M., Haeussler, S., Gerhold, C. Order Release Planning with Predictive Lead Times: A Machine Learning Approach. Under Review in *International Journal of Production Research*.

## WORKING PAPERS

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- Aouam, T., Haeussler, S., Uzsoy, R. Coordinating Order Acceptance and Release Planning with Demand Uncertainty, *Working paper*, University of Innsbruck.
- Haeussler, S., Ilmer, Q., Stefan, M. Human Decision Making in Systems with Limited Capacity, *Working paper*, University of Innsbruck.
- Haeussler, S., Ilmer, Q., Missbauer, H. Neuner, P. Coordinating Optimization- and Rule-Based Order Release Models, *Working paper*, University of Innsbruck.
- Ilmer, Q., Haeussler, S., Uzsoy, R. Optimization Based Order Release Models in Dual Resource Constraint production systems, *Working paper*, University of Innsbruck.
- Ilmer, Q., Neuner, P., Haeussler, S. Hierarchical Hybrid Workload Control in Dual Resource Constraint Systems, *Working paper*, University of Innsbruck.
- Neuner, P., Thuerer, M., Haeussler, S. Adaptive Rule Based Workload Control: A Simulation Study. *Working paper*, University of Innsbruck.

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Neuner, P., Ilmer, Q., Haeussler, S. Improving due date performance of workload control. *Working paper*, University of Innsbruck.

Schneckenreither, M., Haeussler, S. Average Reinforcement Learning for Order Release Planning. *Working paper*, University of Innsbruck.

### CONFERENCE AND WORKSHOP PRESENTATIONS

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2020 Human Decision Making in Systems with Limited Capacity. *1st virtual IFAC World Congress*.

Integration of Order Acceptance into Optimization Based Order Release models. *21<sup>st</sup> International Working Seminar on Production Economics*, Innsbruck, Austria.

2019 Adaptive Order Release Planning with Dynamic Lead Times. *9<sup>th</sup> IFAC Conference on Manufacturing Modelling, Management and Control*, Berlin, Germany.

2018 Boon and Bane of Big Data for Lead Time Management, *Guest lecture at the North Carolina State University*, Raleigh, USA.

Comparison between Rule- and Optimization based Workload Control Concepts: A Simulation-based Optimization approach, *20<sup>th</sup> International Working Seminar on Production Economics*, Innsbruck, Austria.

2017 Comparison between Rule- and Optimization based Workload Control Concepts, *International Conference on Operations Research 2017*, Berlin, Germany.

2016 Successful Implementation of an Order Release Mechanism based on Workload Control: A Case Study of a Make-To-Stock Manufacturer, *19th International Working Seminar on Production Economics*, Innsbruck, Austria.

2015 Integration of order acceptance decisions into optimization based order release models: A simulation study, *CORS/INFORMS Joint International Conference*, Montreal, Canada.

2014 Integration of the order entry level into optimization based order release models, *5th Workshop on Young Academic's Management Science*, Graz, Austria.

2013 Comparison of two optimization based order release mechanisms in workload control: A simulation study of a MTO manufacturer, *XXVI EURO - INFORMS Joint International Conference*, Rome, Italy.

2012 Comparison of two optimization based order release mechanisms in workload control: A simulation study of a MTO manufacturer, *Young Academics' Management Science - YAMS*, Graz, Austria.

Optimization based order release models in workload control with a special focus on clearing function models, *Workshop with research group 'Operations and Supply Chain Management' from TU Munich School of Management*, Innsbruck, Austria.

Empirical validation of meta-models of work centres in order release planning, *17<sup>th</sup> International Working Seminar on Production Economics*, Innsbruck, Austria.

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LANGUAGE SKILLS

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German (native)

English (proficient user)

Italian and Spanish (basic user)