



# Fraunhofer

IFF

FRAUNHOFER INSTITUTE FOR FACTORY OPERATION AND AUTOMATION IFF, MAGDEBURG

**PROGRAM**

## **WORKSHOP ON MODELING AND SIMULATION IN MANUFACTURING, LOGISTICS, TRANSPORTATION AND TRAFFIC**



**20TH IFF SCIENCE DAYS, JUNE 21, 2017**



OTTO VON GUERICKE  
UNIVERSITÄT  
MAGDEBURG

**ILM**

INSTITUT FÜR LOGISTIK  
UND MATERIALFLUSSTECHNIK



**Fraunhofer**

IFF

## **WELCOME**

**9:30 am**

[Welcome](#)

**Tobias Reggelin**

Otto von Guericke University, Magdeburg

**Bastian Sander**

Fraunhofer Institute for Factory Operation and Automation IFF, Magdeburg

## **SIMULATION IN TRAFFIC AND TRANSPORTATION**

*Chair: Tom Assmann*

**9:40 am**

**Mihails Savrasovs, Irina Pticina and Irina Yatskiv**

Transport and Telecommunication Institute TSI, Riga

[Environmental Impact Assessment Based on Microscopic Traffic Flow Simulation](#)

**10:10 am**

**Wladimir Hofmann and Tom Assmann**

Otto von Guericke University, Magdeburg

**Parisa Dolati Neghabadi and Van-Dat Cung**

Université Grenoble Alpes

[Simulation-Based Assessment Tool for Cargo Bikes in Multimodal Transportation Chains](#)

**10:40 am**

**Coffee break**

## **SIMULATION IN TRAFFIC**

*Chair: Bastian Sander*

**11 am**

**Robert Protzmann**

Fraunhofer Institute for Open Communication Systems FOKUS, Berlin

[VSimRTI – Virtual Testing of Connected and Automated Driving](#)

**11:30 am**

**Peter Edward Finch**

graphmasters GmbH, Hannover

[Optimized Routing with NUNAV](#)

12 am

**Riccardo Bartolozzi, Eva-Maria Stelter**

Fraunhofer Institute for Structural Durability and System Reliability LBF, Darmstadt

**Energy Consumption Simulation and Energy-Optimal Routing for Electric Vehicles**

12:30 am

**Lunch**

 **Fraunhofer IFF VTDC**

## MESOSCOPIC SIMULATION IN MANUFACTURING AND LOGISTICS

Chair: Tobias Reggelin

1:30 pm

**Tobias Reggelin**

Otto von Guericke University, Magdeburg

**Introduction to Mesoscopic Simulation Modeling in Manufacturing and Logistics**

1:45 pm

**Christian Schauf**

Volkswagen AG, Wolfsburg

**Mesoscopic Discrete Rate Simulation Models for Production Planning: Requirements of Production Planners and First Applications**

2:15 pm

**Toralf Wunder**

BMW Group, Munich

**Sebastian Lang**

Otto von Guericke University, Magdeburg

**Mesoscopic Simulation Models for Logistics Process Planning in Receiving**

2:45 pm

**Paul Aurich and Abdulrahman Nahhas**

Otto von Guericke University, Magdeburg

**Marco Krist**

Tectron GmbH, Worbis

**Mesoscopic Discrete Rate and Microscopic Discrete Event Simulation Models for Simulation-Based Optimization of a Hybrid Flow Shop Problem in Electronics Manufacturing**

3:15 pm

**Coffee break**

**WEDNESDAY,  
JUNE 21, 2017**

 Denkfabrik, Werner-Heisenberg-Strasse 1

## **MACHINE LEARNING AND AUTOMATED MODELING IN MANUFACTURING AND LOGISTICS MODELING FOR LARGE CAPITAL PROJECTS**

*Chair: Bastian Sander and Tobias Reggelin*

**3:45 pm**

**Sergii Kolomiichuk**

Fraunhofer Institute for Factory Operation and Automation IFF, Magdeburg

**Machine Learning in Manufacturing and Logistics: Trends and Prospects**

**4:15 pm**

**David Weigert and Paul Aurich**

Otto von Guericke University, Magdeburg

**Klaus Hanisch**

tarakos GmbH

**Automatic Data Exchange System among Visualization, Simulation and Construction  
Tools**

**4:45 pm**

**Vasiliy Demin**

Scientific Center of Logistics MADI (Moscow Automobile and Road Construction State Technical  
University)

**Modeling of Logistics Processes for Major Investment Projects in Russia**

**7 pm**

**IFForum "Business Meets Research"**

 **Joseph-von-Fraunhofer-Strasse 1** (*Entrance starts at 6pm*)



## TERMS OF REGISTRATION

Register online for the workshop "Modeling and Simulation in Manufacturing, Logistics, Transportation and Traffic" during the 20th IFF Science Days on [www.wissenschaftstage.iff.fraunhofer.de](http://www.wissenschaftstage.iff.fraunhofer.de) or use the registration form enclosed in this program

Workshop registration is binding. Upon receipt of your registration, we will send you confirmation of registration in an email. The registration fee is due when you receive your bill. You will only be admitted to the workshop when you have already paid your bill by the deadline. Upon receipt of your payment, we will send you confirmation of attendance.

What if you are suddenly unable to attend? No problem: You may transfer your registration to a colleague from your organization. Please inform us of this in writing.

**THE DEADLINE FOR REGISTRATION FOR ALL EVENTS IS JUNE 16, 2017.**

### CANCELLATION

If you cancel your registration later than June 16, 2017 but earlier than two days prior to the event, we will charge a processing fee of € 30. Thereafter, you will be charged the full conference fee. Cancellations must be in writing and include your invoice and VAT numbers. The workshop fee is exempt from sales tax.

The entire workshop fee will be due should you fail to appear.

### PRIVACY POLICY

The Fraunhofer IFF treats all attendees' personal data confidentially and takes every measure necessary to protect it. The Fraunhofer IFF collects and uses the data to organize this event and will not disclose it to any third parties.

### PHOTO RIGHTS

Media representatives and photographers contracted by the organizer will be attending the IFF Science Days and the workshop. Please note that photographs taken in conjunction with the conference for publication and circulation in media (press, Internet, flyers, brochures, etc.) may be used by the organizer anytime and anywhere. By attending the event, attendees consent to such publication without compensation, i.e. without express consent of the individual concerned. If you do not consent, inform the photographers directly.

### ACCOMMODATIONS

Take advantage of Magdeburg Marketing Kongress und Tourismus GmbH's hotel booking service (Phone + 49 391 8380 402, <http://www.magdeburg-tourist.de/index.php?La=2>). This professional service will find the right accommodations for you free of charge.

### REGISTRATION FEE

June 21, 2017

#### Workshop on Modeling and Simulation in Manufacturing, Logistics, Transportation and Traffic

Attendee	€ 100
University staff	€ 60
Speaker	free
Student	free (without food or beverages)

I will attend the following events: (Check the appropriate events.)

Please register on: [www.wissenschaftstage.iff.fraunhofer.de/en/registration.html](http://www.wissenschaftstage.iff.fraunhofer.de/en/registration.html)

Alternatively, register by faxing this form to: +49 391 4090-93-259

June 21, 2017

**Workshop on Modeling and Simulation in Manufacturing, Logistics, Transportation and Traffic**

June 21, 2017

**IFForum "Business Meets Research"**

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First Name

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Title

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Position

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Organization

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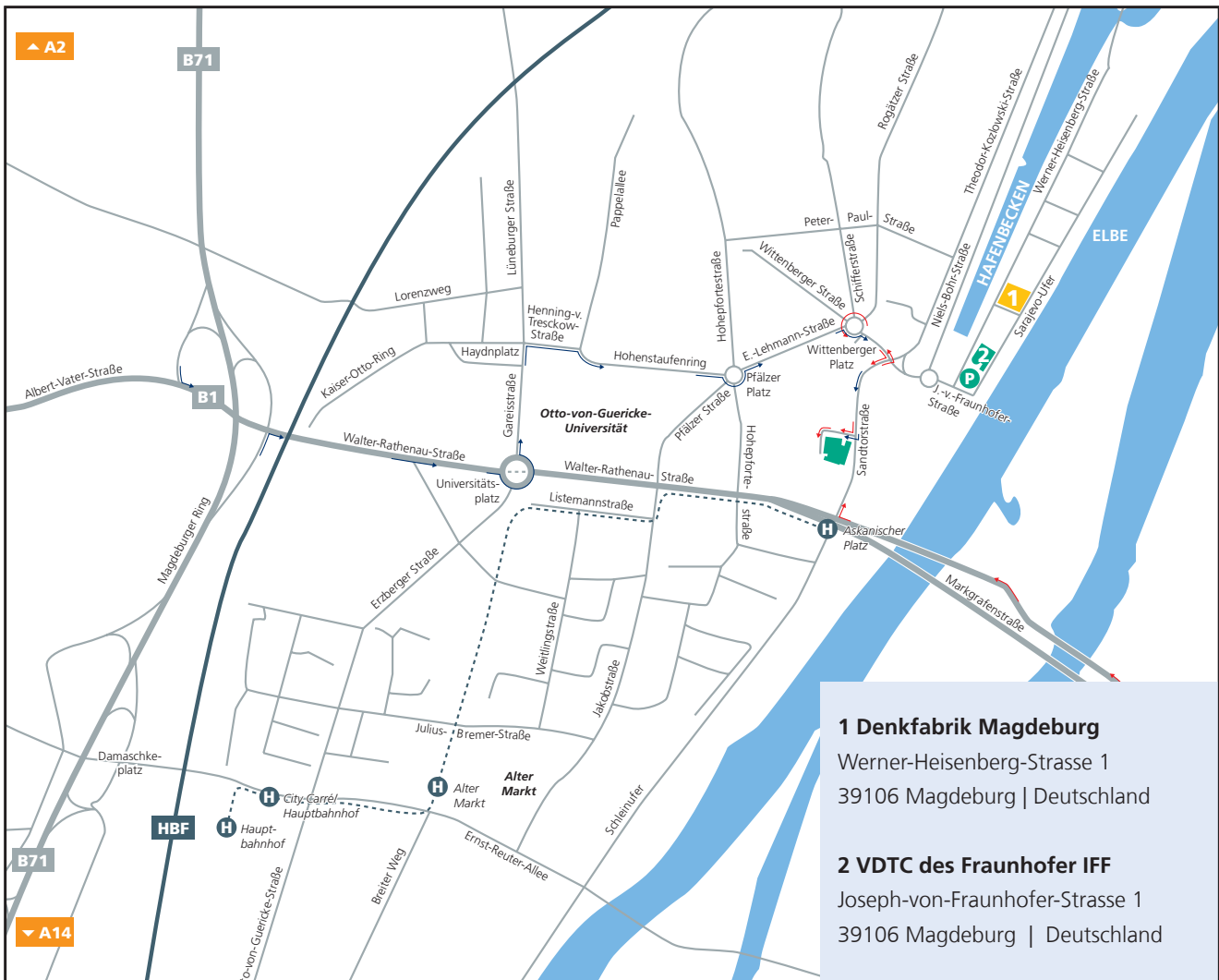
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## ORGANIZER

Fraunhofer Institute for Factory Operation and Automation IFF  
Magdeburg

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Prof. Michael Schenk  
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## VENUE

Denkfabrik Magdeburg  
Werner-Heisenberg-Strasse 1 | 39106 Magdeburg  
Germany

### Venue IFForum "Business Meets Research"

Virtual Development and Training Centre VDT Center of the  
Fraunhofer IFF  
Joseph-von-Fraunhofer-Strasse 1 | 39106 Magdeburg  
Germany