

# Agenda

## Monday, April 25, 2022 Master's Day

Room: D-Space (Main Building)

- 9:45 - 10:00 **Check-In**
- 10:00 - 12:00 **Why do your Ph.D.?**  
Hendrik Raetz, Dr. Katharina Baum, Prof. Dr. Felix Naumann, Prof. Dr. Holger Karl  
**Panel Discussion**
- 12:00 - 13:00 **Lunch Break (no catering)**
- 13:00 - 15:30 **Master's Information Day**
- 15:30 - 16:00 **Coffee Break**
- 16:00 - 17:30 **Showcase**  
Wenzel Pünter, Master Thesis Cybersecurity  
**Towards Mining Actionable Cyber Threat Intelligence from Process Behavior Graphs**  
Konstantin Döbler, Master Thesis Data Engineering  
**TBA.**  
Christopher Aust & Ulrike Bath & Florence Böttger & Jonas Krah, Master Project IT  
Systems Engineering  
**Robust Multi-Agent Reinforcement Learning for Scalable Failure Root-Cause Analysis**
- 17:30 - 19:00 **Get-Together with Finger Food**

## Tuesday, April 26, 2022 Future SOC Lab Day

Room: D-Space (Main Building)

- 9:00 - 9:20 **Opening Words**  
Prof. Dr. Andreas Polze, Operating Systems and Middleware Group, HPI
- 9:20 - 11:30 **Industry Talks**  
Andreas Rohnfelder, Fujitsu  
[Quantum-Inspired Computing](#)  
Andrey Hoursanov, SAP SE  
[Quantum Experiments @ SAP](#)  
Jan-David Brustik, Hewlett Packard Enterprise  
[Business Model Innovation in the IT-Industry - Why Circular Economy and Ecosystems are the Key to Success](#)  
Jochen Glaser, SUSE  
[Future Open Source Innovations for SAP Systems](#)
- 12:00 - 13:30 **Lunch Break**  
Steering Committee Meeting  
Poster Session
- 13:30 - 14:15 **Tour of the New Data Center**  
Bernhard Rabe & Dr. Tobias Pape, HPI
- 14:15 - 15:15 **Research Talks I**  
Nadja Veigel, TU Berlin  
[Mining Flood Insurance Big Data to Reveal the Determinants of Humans' Flood Resilience](#)  
Iliyan Nenov & Prof. Dr. George Mengov, Sofia University St. Kliment Ohridski  
[Neurocomputational Economic Forecasting in Turbulent Times](#)
- 15:15 - 15:30 **Coffee Break**
- 15:30 - 16:30 **Research Talks II**  
Stefan Halfpap, HPI  
[Query-Driven Partial Database Replication](#)  
Hendrik Rätz, Wildenstein Plattner Institute Inc.  
[Document Analysis for Cultural Heritage Data](#)
- 16:30 - 17:00 **Closing Remarks**  
Prof. Dr. Andreas Polze, Operating Systems and Middleware Group, HPI

## Wednesday, April 27, 2022 Doctoral Symposium

Room: D-Space (Main Building)

- 9:00 - 9:10    Opening Words  
Prof. Dr. Andreas Polze, Speaker of the SSE Research School, HPI
- 9:10 - 9:55    Keynote  
Dr. Melissa Densmore, Speaker of the Research School Branch at University of Cape Town  
[Co-Designing Digital Resources for Bandwidth-Constrained Communities](#)
- 10:00 - 11:00    Session I  
Huancheng Hu, Cybersecurity - Enterprise Security Group, HPI  
[Dealing with Bad Apples: Organizational Awareness and Protection for Bit- and Typosquatting Attacks](#)  
Shohei Katakura, Human Computer Interaction Group, HPI  
[Kerfmeter: Automatic Kerf Calibration for Laser Cutting](#)  
ZHI Yuan, Nanjing University  
DU Yuntao, Nanjing University  
[Semi-Supervised Learning with Multi-Head Co-Training](#)
- 11:00 - 11:30    Coffee Break
- 11:30 - 13:00    Session II  
Pauline Hiort, Data Analytics and Computational Statistics Group, HPI  
[Drug Response Predictions with Networks from Molecular Data](#)  
Mazhar Hameed, Information Systems Group, HPI  
[An Overview of Data Preparation and Cleaning](#)  
Marco Cipriano, Artificial Intelligence and Intelligent Systems Group, HPI  
[An Alpha-Shape-Based Approach to Refine Manual Annotations of 3D Medical Targets](#)  
WANG Yue, Data Engineering Systems, HPI  
[Optimizing Decentralized Window Aggregation](#)  
Keven Richly, Enterprise Platform and Integration Concepts Group, HPI  
[Budget-Conscious Fine-Grained Configuration Optimization for Spatio-Temporal Applications](#)  
Tzofnat Greenberg-Toledo, Faculty of Electrical and Computer Engineering, Technion  
[Accelerating Deep Neural Network Applications](#)
- 13:00 - 14:00    Lunch Break (no catering)

## Wednesday, April 27, 2022 Doctoral Symposium

Room: D-Space (Main Building)

14:00 - 15:30 Session III

Dorina Bano, Business Process Technology Group, HPI

Mining Contextual Information from Event Logs

Mary-Jane Antia, University of Cape Town

Automating the Authoring of Competency Questions using Machine Learning

Felix Grzelka, Operating Systems and Middleware Group, HPI

Integration of a Clinical Decision Support System for Remote Patient Monitoring

Sumit Shekhar, Computer Graphics Systems Group, HPI

Low-light Image and Video Enhancement via Adaptive Chromaticity

Johan Bontes, University of Cape Town

Optimizing NP-Hard Problems Using Local Search

David Sanka Laar, University of Cape Town

Requirements for a Business Process Redesign Approach for SMEs in Developing Country Contexts

15:30 - 16:45 Poster & Ice Cream Session

16:45 - 17:45 Session IV

Dylan Slack, University of California Irvine

Examining Shortcomings and Improving the Reliability of Machine Learning Explanations

Prof. Erik Sudderth, Speaker of the Research School Branch at University of California Irvine

Keynote

18:00 - open Ph.D. Student Get-Together

# Thursday, April 28, 2022 Symposium Day 1

Room: HS 1 (Lecture Building)

- 12:30 - 13:00 Check-In
- 13:00 - 13:15 Opening Words  
Prof. Dr. Andreas Polze, Speaker of the SSE Research School, HPI  
Prof. Dr. Felix Naumann, Speaker of the DSE Research School, HPI
- 13:15 - 13:30 Elevator Pitches – New SSE Members  
Jorge Francisco Ciprian Sanchez (Computer Graphics Systems Group)  
Mustafa Ghani (System Analysis and Modeling Group)  
Eva Krebs (Software Architecture Group)  
Jobin Idiculla Wattasseril (Computer Graphics Systems Group)  
Afshin Zivi (Cybersecurity - Enterprise Security Group)  
Adrian Jobst (Computer Graphics Systems Group)
- 13:30 - 13:40 Elevator Pitches – New DSE Members  
Tahir Miri (Digital Health - Machine Learning Group)  
Margarita Bugueno (Artificial Intelligence and Intelligent Systems Group)  
Eshant English (Digital Health - Machine Learning Group)  
Fabian Stolp (Digital Health - Connected Healthcare Group)  
Khawla Rjeb (Data Engineering Systems Group)
- 13:45 - 14:30 Keynote  
Dr. Wolfgang Maier, Director of Hardware Development, IBM Research Böblingen  
**How to Cope with Future Compute Demands**  
Prof. Dr. Tobias Friedrich, Dr. Marcus Kölling  
**Awarding of the HPI Fellowship**
- 14:30 - 15:00 Coffee Break
- 15:00 - 16:00 Session I  
Prof. Dr. Maria Keet, University of Cape Town  
**Evidence-based and Ontology-driven Logics for Conceptual Data Modelling**  
Prof. Dr. Heiko Hamann, Universität Lübeck  
**Scalability in Robotics and Computing**

# Thursday, April 28, 2022 Symposium Day 1

Room: HS 1 (Lecture Building)

16:00 - 16:15 Coffee Break

16:15 - 17:15 Session II

Kordian Gontarska, Operating Systems and Middleware Group, HPI  
**Can we predict death? - Trade-offs in Clinical Decision Support Systems**  
Prof. Dr. Peter Tröger, Berliner Hochschule für Technik

17:15 - 17:30 Coffee Break

17:30 - 18:00 Session III

Dr. Gregor Seiler, IBM Europe  
**Quantum Safe Cryptography**

18:30 - open Boat Tour and Visit to Museum Barberini

## Friday, April 29, 2022 Symposium Day 2

Room: HS 1 (Lecture Building)

8:30 - 9:00 Check-In

9:00 - 9:30 Keynote

Prof. Dr. Timo Hönig, Ruhr Universität Bochum

System Software for the Next Generation: Energy Efficiency as Core Design and Operating Principle

9:30 - 11:00 Session IV

Prof. Dr. Theo D'Hondt, Vrije Universiteit Brussel

Memory-Critical Algorithms

Max Plauth, Operating Systems and Middleware Group, HPI

Improving Accessibility of Heterogeneous System Resources for Application Developers using Programming Abstractions

Rana Shahout, Department of Computer Science, Technion

Real Time Flow Monitoring

11:00 - 11:30 Coffee Break

11:30 - 13:00 Session V

Dr. Michael Perscheid, Enterprise Platform and Integration Concepts Group, HPI

What's Next after In-Memory Databases or How Does the Future of Business Applications Look Like?

Justin Albert, Digital Health - Connected Healthcare Group, HPI

Using Machine Learning to Predict Perceived Exertion During Resistance Training with Wearable Heart Rate and Movement Sensors

Sarah Dsane, University of Cape Town

Using familiar tools in an unfamiliar context: Sharing Co-designing experiences in a cross-cultural low-resource context

13:00 - 13:10 Closing Remarks

Prof. Dr. Andreas Polze, Speaker of the SSE Research School, HPI