

NeurIPS Social:

# A Decemberfest on Trustworthy AI Research

An overview and panel discussion with virtual drinks and Bretzels

Date: 08.12.2020, 09:00 p.m. – 11:00 p.m. CET

Agenda		
Short welcome/introduction		
	Hendrik Strobelt	5 min
Presentations		
Overview		
Introduction of the Network of National Centres of Excellence for AI Research	Katharina Morik	5 min
Elevator Pitches		
BIFOLD + international partner	Wojciech Samek and Thomas G. Dietterich	2.5 min + 2.5 min
DFKI + international partner	Philipp Slusallek and Emmanuel Vincent	2.5 min + 2.5 min
MCML + international partner	Bernd Bischl and Joaquin Vanschoren	2.5 min + 2.5 min
ML2R + international partner	Stefan Wrobel and Bertrand Braunschweig	2.5 min + 2.5 min
Tuebingen AI Center + international partner	Matthias Bethge and Mackenzie Mathis	2.5 min + 2.5 min
Discussion		
Plenary Discussion (Presenters)	Reinhard Karger	35 min
Aftermath		
Gather.town Foyer with topical corners and hang-out zone		
END		

## Katharina Morik

Katharina Morik received her doctorate from the University of Hamburg in 1981 and her habilitation from TU Berlin in 1988. In 1991, she established the chair of Artificial Intelligence at TU Dortmund University. The current focus lies on learning algorithms for distributed, real-time applications, for example in astrophysics, industry 4.0 or traffic infrastructure. Katharina Morik is speaker of the Collaborative Research Center 876 “Providing Information by Resource-Constrained Data Analysis” and the Competence Center Machine Learning Rhine-Ruhr (ML2R). In addition, she coordinates the German Network of National Centres of Excellence for AI research and the French national artificial intelligence research programme.

Katharina Morik has been involved in numerous EU projects: She has coordinated the MiningMart project and worked in the projects VaVel and Insight on the analysis of data streams for traffic planning. Katharina Morik has been a member of the Academy of Technical Sciences since 2015 and of the North Rhine-Westphalian Academy of Sciences, Humanities and the Arts since 2016. She is a GI-Fellow and the author of more than 200 publications in prestigious journals and conferences. She was a member of the editorial board of the journal “Machine Learning” and is currently one of the editors of the international journal “Data Mining and Knowledge Discovery”. Katharina Morik was a founding member, Program Chair and Vice Chair of the conference series IEEE International Conference on Data Mining (ICDM) and Program Chair of the European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD).

The first efficient implementation of the Support Vector Machine (SVM) and the globally successful data analysis tool RapidMiner were developed at her department. Together with Volker Markl, Katharina Morik heads the working group “Technological Pioneers and Data Science” of the platform “Learning Systems” of the German Federal Ministry of Education and Research (BMBF).

<https://www-ai.cs.tu-dortmund.de/PERSONAL/morik.html>

<https://www.ml2r.de/en/spokespersons-partner/>

## Wojciech Samek

Wojciech Samek is head of the Department of Artificial Intelligence at Fraunhofer Heinrich Hertz Institute (HHI), Berlin, Germany. He received the Dipl.-Inf. degree in computer science from Humboldt University of Berlin, Germany, in 2010, and the Dr. rer. nat. degree from the Technical University of Berlin, Germany, in 2014. During his studies he was awarded scholarships from the Studienstiftung des deutschen Volkes and the DFG Research Training Group GRK 1589/1, and was a visiting researcher at NASA Ames Research Center, Mountain View, USA. After his PhD he founded the Machine Learning Group at Fraunhofer HHI, which has directed until 2020. Dr. Samek is PI at the Berlin Institute for the Foundation of Learning and Data (BIFOLD), member of the European Lab for Learning and Intelligent Systems (ELLIS) and associated faculty at the DFG graduate school BIOQIC. Furthermore, he is an editorial board member of Digital Signal Processing, PLoS ONE and IEEE TNNLS and an elected member of the IEEE MLSP Technical Committee. He is recipient of multiple best paper awards, including the 2020 Pattern Recognition Best Paper Award, is part of the MPEG-7 Part 17 standardization, and was organizer of special sessions, workshops and tutorials on topics such as explainable AI and federated learning at top-tier machine learning and signal processing conferences. He has co-authored more than 100 peer-reviewed journal and conference papers, predominantly in the areas deep learning, explainable AI, neural network compression, and federated learning.

<http://iphome.hhi.de/samek/>

## Thomas G. Dietterich

Thomas G. Dietterich is emeritus professor of computer science at Oregon State University. He is one of the founders of the field of machine learning. He served as executive editor of Machine Learning (journal) (1992–98) and helped co-found the Journal of Machine Learning Research. In response to the media's attention on the dangers of artificial intelligence, Dietterich has been quoted for an academic perspective to a broad range of media outlets including National Public Radio, Business Insider, Microsoft Research, CNET, and The Wall Street Journal.

Among his research contributions were the invention of error-correcting output coding to multi-class classification, the formalization of the multiple-instance problem, the MAXQ framework for hierarchical reinforcement learning, and the development of methods for integrating non-parametric regression trees into probabilistic graphical models.

Professor Dietterich is interested in all aspects of machine learning. There are three major strands of his research. First, he is interested in the fundamental questions of artificial intelligence and how machine learning can provide the basis for building integrated intelligent systems. Second, he is interested in ways that people and computers can collaborate to solve challenging problems. And third, he is interested in applying machine learning to problems in the ecological sciences and ecosystem management as part of the emerging field of computational sustainability.

<https://eecs.oregonstate.edu/people/dietterich-thomas>

## Philipp Slusalek

Philipp Slusallek is Executive Director DFKI Saarbrücken & Scientific Director of the research area on Agents and Simulated Reality. At Saarland University he has been a professor for Computer Graphics since 1999, a principle investigator at the German Excellence-Cluster on “Multimodal Computing and Interaction” since 2007, and was Director for Research at the Intel Visual Computing Institute 2009-2017. Before coming to Saarland University, he was a Visiting Assistant Professor at Stanford University. He is associate editor of Computer Graphics Forum, a fellow of Eurographics, a member of acatech (German National Academy of Science and Engineering), and a member of the European High-Level Expert Group on Artificial Intelligence. In addition, Prof. Slusallek co-founded the European initiative CLAIRE (Confederation of Laboratories for Artificial Intelligence Research in Europe) in 2018.

He originally studied physics in Frankfurt and Tuebingen (Diploma/M.Sc.) and got his PhD in Computer Science from Erlangen University. His research covers a wide range of topics including artificial intelligence, simulated/digital reality, real-time realistic graphics, highperformance computing, motion synthesis, novel programming models for CPU/GPU/FPGA, computational science, and others.

<https://www.dfki.de/en/web/about-us/employee/person/phsl01/>

## Emmanuel Vincent

Emmanuel Vincent joined Inria in 2006 and was promoted as a Senior Research Scientist in 2016. Since 2017, he is the Deputy Head of Science of the Nancy – Grand Est research centre of Inria. He was a key contributor to the AI roadmap of Région Grand Est and has represented Inria in several meetings on the French-German strategy on AI.

Emmanuel's research focuses on deep learning and statistical signal processing for speech and audio. He has co-authored more than 200 papers, and received the 2018 ISCA Award for the best paper published in Computer Speech and Language in the past 5 years. He is the coordinator of the H2020 project COMPRISE, on Cost-effective, Multilingual, Privacy-driven voice-enabled Services. Emmanuel has served as an Associate Editor for the IEEE Transactions on Audio, Speech and Language Processing and the Chair of ISCA's Special Interest Group on Robust Speech Processing (RoSP SIG). He has organized 12 conferences as general or program chair, and founded three series of evaluation challenges (CHiME, MIREX, SiSEC). He has led Inria's participation in 17 European, national or industrial projects. He is Inria's Scientific Director for the Inria-DFKI partnership.

<https://members.loria.fr/EVincent/>

## Bernd Bischl

Bernd Bischl holds the chair of "Statistical Learning and Data Science" at the Department of Statistics at the Ludwig-Maximilians-University Munich and he is a co-director of the Munich Center for Machine Learning (MCML), one of Germany's national competence centers for ML.

He studied Computer Science, Artificial Intelligence and Data Sciences in Hamburg, Edinburgh and Dortmund and obtained his Ph.D from Dortmund Technical University in 2013.

His research interests include AutoML, model selection, interpretable ML, as well as the development of statistical software.

He is an active developer of several R-packages, leads the "mlr" (Machine Learning in R) engineering group and is co-founder of the science platform "OpenML" for open and reproducible ML.

<https://www.slds.stat.uni-muenchen.de/people/bischl/>

## Joaquin Vanschoren

Joaquin Vanschoren is Assistant Professor at the Eindhoven University of Technology. His research is focused on automated machine learning (AutoML) and meta-learning (learning to learn). He founded the OpenML project (openml.org) and co-organizes the AutoML and meta-learning workshops at ICML and NeurIPS. He co-presented tutorials at NeurIPS and AAAI, and co-authored the book 'Automated Machine Learning' (Springer, 2019). He's a founding member of ELLIS and CLAIRE, and action editor at JMLR.

<https://joaquinvanschoren.github.io/home/>

## Stefan Wrobel

Prof. Dr. Stefan Wrobel is Professor of Computer Science at University of Bonn and Director of the Fraunhofer Institute for Intelligent Analysis and Information Systems IAIS.

He studied computer science and artificial intelligence in Bonn and Atlanta, Georgia/USA (M.S., Georgia Institute of Technology) and obtained his PhD at the University of Dortmund. After holding positions in Berlin and Sankt Augustin he was appointed Professor of Practical Computer Science at Magdeburg University, before taking up his current position in 2002. In addition, since 2014 he is one of the directors of the Bonn-Aachen International Center for Information Technology (b-it).

Professor Wrobel's work is focused on questions of the digital revolution, in particular intelligent algorithms and systems for the large-scale analysis of data and the influence of Big Data/Smart Data on the use of information in companies and society. He is the author of a large number of publications on data mining and machine learning, is on the Editorial Board of several leading academic journals in his field, and is an elected founding member of the "International Machine Learning Society".

As Speaker of the "Fraunhofer Big Data and Artificial Intelligence Alliance", director of the "Fraunhofer Center for Machine Learning", vice-speaker of the "Fraunhofer Information and Communication Technology Group", speaker of the Competence Center Machine Learning Rhine-Ruhr ML2R as well as of the "Fachgruppe Knowledge Discovery, Data Mining und Maschinelles Lernen", a Special Interest Group of the German Computer Science Society and finally senior expert of the EU High-Level Expert Group on Artificial Intelligence he is engaged nationally and internationally in pushing forward the benefits of digitization, big data and artificial intelligence.

<https://www.iais.fraunhofer.de/en/institute/about-us/institute-management/stefan-wrobel.html>

## Bertrand Braunschweig

Bertrand Braunschweig is ENSIIE engineer, PhD from Paris-Dauphine University and Habilitation from University of Paris VI. After a career as a researcher in systems dynamics and artificial intelligence in the petroleum industry, he joined IFP Energies Nouvelles to lead the research activities in AI and to coordinate international projects for defining interoperability standards for processes modeling and simulation.

President of the French Association for Artificial Intelligence for four years, he joined the National Research Agency in 2006 as head of several research programmes and then from January 2009 as head of ANR's ICT department. He then held the position of director of Inria Rennes - Bretagne Atlantique research centre for four years and was advisor to the president of Inria in the field of artificial intelligence, before becoming director of Inria Saclay- Île de France research centre in early 2016 until early 2019.

In 2016 he wrote Inria's first white paper on Artificial Intelligence. From December 2018 to September 2020, he coordinated the national artificial intelligence research plan, and from March to October 2020 he was director of the Paris center of expertise of the Global Partnership on Artificial Intelligence.

Since December 2020, he is an independent consultant and provides scientific support to various organizations.

## Matthias Bethge

Matthias Bethge is Professor for Computational Neuroscience and Machine Learning at the University of Tübingen and director of the Tübingen AI Center (<https://tue.ai>), a joint center between Tübingen University and MPI for Intelligent Systems that is part of the German AI strategy. He is also an Amazon scholar and co-founder of Deepart UG (<https://deepart.io>), and Layer7 AI GmbH (<https://layer7.ai>), and co-initiator of the European ELLIS initiative (<https://ellis.eu>). His main research focus is on robust vision and neural decision making with the goal to advance internal model learning with neural networks (<https://bethgelab.org>). He received the first Bernstein Prize for Computational Neuroscience in 2006 and later became director of the Bernstein Center Tübingen and vice chair of the German Bernstein network (<https://nncn.de>). His work on neural style transfer was among the top-ten most popular publications in 2015 among all disciplines (altmetric). He has been serving as area chair for various conferences such as NeurIPS, ICLR, Cosyne and as general chair for the Bernstein conference, and initiated the “BWKI”, a German-wide school competition for AI (<https://bw-ki.de>).

<https://uni-tuebingen.de/fakultaeten/mathematisch-naturwissenschaftliche-fakultaet/fachbereiche/physik/institute/institut-fuer-theoretische-physik/arbeitsgruppen/ag-bethge/>

## Mackenzie Mathis

Mackenzie Mathis is the Bertarelli Foundation Chair of Integrative Neuroscience at the Swiss Federal Institute of Technology, Lausanne (EPFL). She is an assistant professor within the Brain Mind Institute, Center for Neuroprosthetics, and Center for Intelligent Systems at EPFL, as well as an EPFL ELLIS Unit Faculty Member (and ELLIS Fellow), having joined EPFL in 2020 after moving her lab from Harvard University where she held the Rowland Fellowship. Her lab works on mechanisms underlying adaptive behavior in intelligent systems. Specifically, the laboratory combines machine learning, computer vision, and experimental work in rodents with the combined goal of understanding the neural basis of adaptive motor control, which may lead to new avenues in therapeutic research for neurological disease. Her work has recently been featured in the news at Bloomberg Business Week, Nature, and The Atlantic.

<http://www.mousemotorlab.org/#research>

## Reinhard Karger

Reinhard Karger (1961), M.A., Corporate Spokesman, German Research Center for Artificial Intelligence / Deutsches Forschungszentrum für Künstliche Intelligenz, DFKI, studied theoretical linguistics and philosophy in Wuppertal. He was an assistant at the Chair of Computational Linguistics of Saarland University. Since 1993 he works for the German Research Center for Artificial Intelligence, DFKI, in Saarbrücken and since 2011 he has been the corporate spokesman of DFKI. Reinhard Karger has been working for 35 years in the fields of theoretical linguistics and artificial intelligence, with an interest for philosophy of consciousness, history of science and digital innovation culture.

Reinhard Karger was a member of the jury of the "Excellent Places" competition for over ten years, has been ambassador of "Germany - Land of Ideas" since June 2019 and was appointed to the jury of the German Mobility Award in 2020. From May 2014 to June 2017 he was President of the German Society for Information and Knowledge (DGI). Since February 2017 he has been STEM ambassador for Saarland, in March 2018 he was appointed one of the 100 Fellows of the Competence Centre for Cultural and Creative Industries of the German Federal Government. In addition, he is a jury member of the competitions Kreativsonar (state) and Kreativpiloten (federal government).