4. Helmholtz Reproducibility Workshop

Tuesday 25 March 2025 - Tuesday 25 March 2025

Speaker information

Dr Altuna Akalin

Altuna is a bioinformatics scientist and the head of the Bioinformatics and Omics Data Science Platform at the Berlin Institute of Medical Systems Biology, Max Delbrück Center in Berlin. He has been developing computational methods for analyzing and integrating large-scale genomics data sets since 2002. His work primarily involves using machine learning and statistics to uncover patterns related to key biological variables such as disease state and type. Altuna has spent time in the USA, Norway, Turkey, Japan, and Switzerland to pursue research and education in statistics, machine learning, and bioinformatics. The overarching goal of his current work is to utilize complex molecular signatures to provide decision support systems for disease diagnostics and biomarker discovery.

Dr Frieder Paulus

Frieder Paulus is Professor of Computational Psychiatry at the Department of Psychiatry and Psychotherapy at the University of Lübeck. He studied psychology in Norway and Bielefeld and, after research stays at Leuphana University Lüneburg and RWTH Aachen University, obtained his doctorate at Philipps University Marburg. He was appointed Junior Professor of Social Neuroscience Methods at the University of Lübeck in 2017 and became Associate Professor in 2022. In addition to his work in the field of social neuroscience, he has conducted research on the reproducibility and reliability of imaging data in psychiatry. He teaches research methods in the Clinical Psychology and Psychotherapy program and founded the Lübeck Open Science Initiative together with colleagues from STEM and medicine. They currently develop perspectives on scientific incentive structures and novel funding models.

PD Dr Ulf Toelch

Ulf obtained his PhD in biology at Ludwig Maximilans University in Munich. His research includes cognitive neuroscience, quantitative methods and statistical modelling of decision making. After his habilitation in psychology, he joined the BIH QUEST Center for responsible Research. There he currently serves as a research group leader where his research team explores robust methodological approaches in preclinical settings to inform and improve research decisions. Beyond this he is also responsible for educational formats and training at the QUEST.

Dr. Ella Bahry and Deborah Schmidt

As one of the Helmholtz Imaging Support Units, our Technology Platform Image Data Analysis at the MDC focuses on unlocking the potential of image data in scientific research. We develop computational tools and algorithms to efficiently extract, analyze, and interpret data from images, enabling researchers to see their data in new ways and make unexpected discoveries. From individual molecules to entire ecosystems, we work with image data across all scales in close collaboration with the whole Helmholtz Imaging community. Led by Deborah Schmidt, a media computer scientist with expertise in data visualization, computer vision, and open science, we support the full imaging pipeline from data acquisition to analysis, contributing to the broader Helmholtz mission. We also maintain Album, a decentralized platform for sharing digital scientific solutions. Dr. Ella Bahry is a Research Software Scientist at Helmholtz Imaging and also part of the Helmholtz Imaging Support Unit.