

1st MOPRED-Symposium

Algorithms and Applications for Multi-modal Data Integration

10.10.2023 10am-6pm, Goethe University, Frankfurt am Main

10:00	Welcome and opening remarks Marcel Schulz and Florian Buettner
<i>Pathways and gene functions</i>	
10:10-10:25	Machine learning and genetics in neuropsychiatry Andreas Chiocchetti , University Hospital Frankfurt
10:25-10:40	Multi-omic characterization of B cell infiltration in glial tumors Katharina Imkeller , University Hospital Frankfurt
10:40-10:55	Proteogenomic classification of diffuse large B-cell lymphoma Thomas Oellerich , University Hospital Frankfurt
10:55-11:10	Assessing the impact of alternative splicing on the functional diversification of a proteome Ingo Ebersberger , Goethe University Frankfurt
11:10-11:25	Graph Database Support for Biomedical Graphs Lena Wiese , Goethe University Frankfurt
11:25-11:35	Probabilistic models of RNA•DNA:DNA triplex formation accurately predict genome-wide RNA-DNA binding Timothy Warwick , Goethe University Frankfurt
11:35-11:45	Joint continuous multi-omics pathway enrichment analysis resolves hidden functional heterogeneity Sareh Ameri Far , Goethe University Frankfurt
11:45-11:55	A statistical approach to identify regulatory DNA variations combined with epigenomics data Nina Baumgarten , Goethe University Frankfurt
11:55-12:05	Group photo
12:05-13:00	Lunch Break
<i>Machine learning methods for multi-modal integration</i>	
13:00-13:15	Understanding learned features in deep learning models Maren Wehrheim , FIAS/Goethe University Frankfurt
13:15-13:30	Pathway-centric Multi-view Latent Variable Models for interpretable modeling of multi-omics data Arber Qoku , Goethe University Frankfurt/DKFZ
13:30-13:45	Recent progress for drug effect prediction with expression data Marcel Schulz , Goethe University Frankfurt
13:45-13:55	Modality agnostic graph-based framework to integrate multi-modal single cell and spatial data Sikander Hayat , UniKlinik RWTH Aachen
13:55-14:05	Multi-output Gaussian Processes for Integration of Multi Omics Data Zahra Moslehi , Goethe University Frankfurt/DKFZ
14:05-14:15	Integrative analysis of multi-modal datasets with Bayesian Tensor Decomposition Kevin de Azevedo , Goethe University Frankfurt

14:15-14:25	Unraveling Epigenomic Landscape: Benchmarking Machine Learning Methods for Expression Prediction Fatemeh Behjati , Goethe University Frankfurt
14:25-15:00	Keynote: Machine Learning-based Multimodal Data Integration for Cancer Subtype Discovery Nico Pfeifer , University of Tübingen
15:00-16:30	Poster session and coffee
<i>Applications in disease</i>	
16:30-16:45	Multivariate prediction of the clinical course in patients with liver cirrhosis Eva Herrmann , Goethe University Frankfurt
16:45-17:00	Prediction of Treatment relevant Molecular Subgroups in Bladder Cancer Nadine Flinner , University Hospital Frankfurt
17:00-17:10	Data integration and predictive models in the quality control of biomedicines Christel Kamp , Paul-Ehrlich-Institut Langen/Goethe University Frankfurt
17:10-17:20	Decoding cellular homeostasis: from data streams to molecular mechanisms Ramachandra M Bhaskara , Goethe University Frankfurt
17:20-17:30	High-throughput mutagenesis identifies mutations and RNA-binding proteins controlling CD19 splicing Kathi Zarnack , Goethe University Frankfurt