



Machine Learning in Science

5th Annual Conference 2023

VENUE – Freistil (Wöhrdstraße 25, 72072 Tübingen)

Poster Session

WEDNESDAY, July 12, 2023 (2:00 - 4:30 pm)

Cluster Network Projects

	Compositionality in Minds and Machines	
1.	Shyamgopal Karthik, Karsten Roth , Massimiliano Mancini, Zeynep Akata	Faithful Text-to-Image Generation via Selection
2.	Tankred Saanum , Noemi Elteto, Peter Dayan, Marcel Binz, Eric Schulz	Reinforcement learning with simplicity priors
3.	Michael Kirchhof , Bálint Mucsányi, Seong Joon Oh, Enkelejda Kasneci	Transferable Uncertainty Estimation
4.	Turan Orujlu , Martin V. Butz, Charley M. Wu	VividDreamer: Tokenized world model with stochastic attention
	Modeling and Understanding Spatiotemporal Environmental Interactions (MUSTEIN)	
5.	Jannik Thümmel , Felix Strnad, Jakob Schlör, Martin Butz, Bedartha Goswami	Sub-seasonal to seasonal predictions through self-supervised learning
6.	Fedor Scholz , Manuel Traub, Thomas Scholten, Christiane Zarfl, Martin Butz	River Discharge Prediction with Neural Networks
7.	Manuel Traub , Fedor Scholz, Christiane Zarfl, Thomas Scholten, Martin V. Butz	Data-Analysis of Extreme Rainfall Events

8.	Florian Ebmeier , Nicole Ludwig, Volker Franz	Fault Detection for Solar Thermal Systems using Variational Autoencoders
Uncovering the inner structure of medical images through generative modeling		
9.	Jan Nikolas Morshuis , Matthias Hein, Christian Baumgartner	Diffusion models might show when we know enough
10.	Jaivardhan Kapoor , Jakob H. Macke, Christian F. Baumgartner	Longitudinal Brain MRI Modeling using Latent Diffusion
11.	Sarah Müller , Lisa M. Koch, Hendrik P. A. Lensch, Philipp Berens	Learning disentangled representations of retinal images with generative models
Probabilistic Inference in Mechanistic Models (PIMMs)		
12.	Jonathan Schmidt , Nicholas Krämer, Philipp Hennig	Joint Inference from Differential Equations and Data
13.	Guy Moss , Vjeran Višnjević, Cornelius Schröder, Reinhard Drews, Jakob H. Macke	Studying the History of Ice Shelves Using Simulation-Based Inference
14.	Jonas Beck , Nathanael Bosch, Philipp Hennig, Jakob H. Macke, Philipp Berens	Probabilistic ODE solvers for parameter inference in Hodgkin-Huxley models
15.	Sebastian Bischoff , Cornelius Schröder, Manfred Claassen, Jakob Macke	Gaussian linear model for reconstruction of gene expression dynamics without time series data
Machine Learning in Education		
16.	Hanqi Zhou , Robert Bamler, Charley M. Wu, Álvaro Tejero-Cantero	Hierarchical Deep State-Space Model for Enhanced Knowledge Tracing