

KLAUS-RUDOLF KLDADNY

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EDUCATION

Max Planck Institute for Intelligent Systems PhD - supervised by Michael Mühlebach and Bernhard Schölkopf	2023 - present
ETH Zurich M. Sc. Data Science	2020 - 2023
TU Dresden B. Sc. Computer Science	2017 - 2020

OCCUPANCIES

ETH Zurich - Working student at <i>The Department of Environmental Systems Science</i>2022 - Beat SOTA on the <i>extreme summer</i> track of the EarthNet2021 challenge by developing new models based on convolutional LSTM (Python, PyTorch) - Code openly available on GitHub	
TU Dresden - Teaching assistant for linear algebra2018 - 2019 - Conducted weekly tutorials for over 30 first-year computer science students - Working student at <i>The Chair of Fundamentals of Electrical Engineering</i>2019 - 2020 - Implemented explainable AI methods for epileptic seizure detection (Python, Keras)	

TECHNICAL SKILLS

Programming Languages	Python, R, SQL, C/C++, Java, Haskell
Frameworks	PyTorch, Keras, Scikit-Learn
Hardware Modeling Languages	VHDL, SystemC

RESEARCH INTERESTS

Causality, Representation Learning, Statistics, Foundation Models, Risk Control

OPEN SOURCE PROJECTS

Created the `torch-kde` python package for differentiable kernel density estimation in PyTorch.

PUBLICATIONS

- Kladny, Klaus-Rudolf**, Bernhard Schölkopf, and Michael Muehlebach. Conformal Generative Modeling with Improved Sample Efficiency through Sequential Greedy Filtering. *International Conference on Learning Representations*, 2025
- Klaus-Rudolf Kladny**, Julius von Kügelgen, Bernhard Schölkopf, and Michael Muehlebach. Deep backtracking counterfactuals for causally compliant explanations. *Transactions on Machine Learning Research*, 2024

3. **Klaus-Rudolf Kladny**, Marco Milanta, Oto Mraz, Koen Hufkens, and Benjamin D. Stocker. Enhanced prediction of vegetation responses to extreme drought using deep learning and earth observation data. *Ecological Informatics*, 80:102474, 2024

4. **Klaus-Rudolf Kladny**, Julius von Kügelgen, Bernhard Schölkopf, and Michael Muehlebach. Causal effect estimation from observational and interventional data through matrix weighted linear estimators. *Uncertainty in Artificial Intelligence*, 2023

5. Yuan Tian, **Klaus-Rudolf Kladny**, Qin Wang, Zhiwu Huang, and Olga Fink. Multi-agent actor-critic with time dynamical opponent model. *Neurocomputing*, 517:165–172, 2023

INVITED TALKS

Think & Link at the International Max Planck Research School for Intelligent Systems	2025
Seminar for Statistics at ETH Zurich	2025
Congress of Bavaria's professional association for orthopedics and trauma surgery.	2024
Congress of Baden-Württemberg's professional association for orthopedics and trauma surgery.	2023

INTERNSHIPS

SIEMENS Healthcare	2014
Method Park, Information Systems	2019

SPOKEN LANGUAGES

German (native), English (C1), Norwegian (C1), Latin, Ancient Greek

HOBBIES

Jazz piano, jogging, hiking
