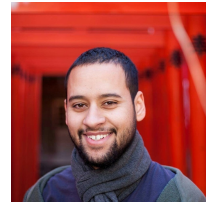


Omer Rochman Sharabi



✉ o.rochman@uliege.be

🔗 omerrochman.github.io

🔄 OmerRochman

Overview

I am a PhD student at the University of Liège working with Prof. [Gilles Louppe](#) on scientific machine learning. My interests are model discovery, neural emulators, and inverse problems. Currently, I am exploring how diffusion models, Bayesian inference, and posterior sampling can be used to solve forward and inverse problems in the context of physics, weather science, and PDEs. I am looking for collaboration and internship opportunities, as well as reaseach and postdoc positions.

Education

PhD	University of Liège , with the supervision of Prof. Gilles Louppe	Oct 2021 – Ongoing
MSc Mathematics	Technical University of Munich (TUM) , “Solving Schrödinger’s equation with Deep Learning” gitlab	Oct 2017 – Oct 2020
BSc Physics	Waseda University , exchange	Sep 2015 – Aug 2016
BSc Physics	University of Leipzig , “Stability of symmetric Barchan dunes”	Oct 2013 – Aug 2017

Publications

Appa: Bending Weather Dynamics with Latent Diffusion Models for Global Data Assimilation Gérôme Andry, Sacha Lewin, François Rozet, Omer Rochman Sharabi , Victor Mangeleer, Matthias Pirlet, Elise Faulx, Gilles Louppe, page	ML4PS, NeurIPS 2025
A Neural Material Point Method for Particle-based Emulation Omer Rochman Sharabi , Sacha Lewin, Gilles Louppe, arxiv/2408.15753 page	TMLR, 02/2025
Trick or treat? Evaluating stability strategies in graph network-based simulators Omer Rochman Sharabi , Gilles Louppe, page	ML4PS, NeurIPS 2023
Differentiable composition for model discovery Omer Rochman Sharabi , Gilles Louppe, page	ML4PS, NeurIPS 2022

Experience

appliedAI , AI researcher	Munich, Germany
• Design and implementation of AI and ML architectures with focus on transferring state-of-the-art research into commercial applications • Delivery of products as Python packages • Topics worked on include reinforcement learning for plant control, time series prediction, anomaly detection, and Bayesian optimization.	May 2019 – Sep 2021

Skills

Languages: Python, English, Spanish, Hebrew, German (B2), French (B1)

Technologies: Jax, PyTorch, Linux, Git, Mathematica, Latex, Slurm, Docker, etc.