



## Martin Burger

DESY | UNIVERSITÄT HAMBURG

# Image Reconstruction – The Dialectic of Modelling and Learning

WED. MARCH 20, 2024 • 14:30H

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## Image Reconstruction – The Dialectic of Modelling and Learning

Speaker: Prof. Dr. **Martin Burger**  
DESY | Universität Hamburg

Organizer: FAU MoD, Research Center for Mathematics of Data at  
FAU, Friedrich-Alexander-Universität Erlangen-Nürnberg  
(Germany)

In this talk we will discuss some current and future challenges in high-dimensional image reconstruction, which is based on the solution of large-scale inverse problems involving various uncertainties. While classical methods were purely based on physical models for forward operators and regularizations, modern machine learning techniques create the antithesis of data-driven approaches. We will discuss some pitfalls that machine learning can encounter in inverse problems and discuss opportunities for the synthesis of model- and data-driven approaches.

### WHEN?

Wednesday **March 20, 2024**  
14:30H

### WHERE?

On-site / Online

Room **H13 – Johann-Radon-Hörsaal**  
FAU. Friedrich-Alexander-Universität Erlangen-Nürnberg  
Felix-Klein building. Department Mathematik  
Cauerstraße 11, 91058 Erlangen (Germany)

Zoom link: <https://shorturl.at/evR04>

Meeting ID: **624 1094 3213** | PIN code: **694096**

