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Vienna Doctoral School in Physics

ESI

Erwin Schrödinger International Institute
for Mathematics and Physics

Machine Learning for Materials Hard and Soft

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ESI, University of Vienna

Thomas Pock (TU Graz)

Image Analysis

Abstract:

In the theoretical part of the tutorial, I will introduce and discuss various image analysis tools that are commonly used to solve practical problems such as image reconstruction, image segmentation and image classification. I will talk about advanced filtering techniques, variational approaches and also learning based methods. In the practical session I will explain how some of the tools from the theoretical part are implemented with Python and more specifically with Pytorch.