



2021 - KoMSO ACADEMY

**Combining model- and data-based approaches
for industrial problems**

Training and hands-on session

The hands on sessions will be given by Dr. Daniel Otero Baguer. All sessions will use Python as programming language and the PyTorch framework.

Topics

- Introduction to training neural networks with PyTorch
- Model-based classic approaches, e.g., ISTA.
- Introduction to data-based methods, e.g., LISTA
- Neural Networks for trivial ill-posed inverse problems and fully data-based methods
- Combining model and data based methods: learned post-processing and learned gradient descent
- Deep Image Prior and mathematical aspects
- Applications on Computed Tomography (CT)

The training course will take place from 14.9. 9:00 to 15.9. 12:00.