
Thesis

bachelor / master / project

working title:

Learning of Port-Hamiltonian Dynamics

keywords:

machine learning, mechanics, thermodynamics, simulation, optimization, control

ideal candidate:

while working on the thesis project, you would enjoy to

- play with new ideas at the intersection of dynamics and machine learning
- work with a high-level programming language such as Julia or Python

a strong background in mathematics or computer science is *not* required, however, candidates should be able to approach a broad range of topics from both fields with an open mind driven towards simplicity

previous knowledge about machine learning or system identification is not a strict requirement

while working on this project, you may frequently discuss and potentially collaborate with your supervisor

the focus of the thesis lies on

the data-efficient identification of robust and transparent models of physical systems

based on a compositional and thermodynamically consistent modeling language for multiphysical systems

interested?

please contact markus.lohmayer@fau.de.