

Schedule

	Monday	Tuesday
9:00 - 10:45	<div>Introduction</div> <div>ML for Dynamical Systems: Overview and Project Topics</div>	<div>Project Q&A</div>
11:15 - 13:00	<div>Solving Dynamical Systems in Julia</div>	<div>Project Work</div>
14:00 - 15:45	<div>Project Introductions and Q&A</div>	<div>from 15:00 Project Presentations</div>
16:15 - 18:00	<div>Project Work</div>	

Projects

- Work in groups of ~4 people
- We'll introduce three main topics, and a few project ideas for each of them
- We prepared a lot of Jupyter notebooks with plenty of code to get you started

Resources

We prepared a lot of additional material for you!

- All workshop material is available at <https://github.com/TUM-PIK-ESM/ML-DS-Workshop-23>
- All lectures
- Project descriptions and Jupyter notebooks to get you started
- Programming Cheat Sheet



Projects

What can you do?

- How many of you are already familiar with the Julia language? It would be best if those people are spread across multiple groups
- Pick one of three methods
- Study the material about the method that we uploaded to the repository
- The Jupyter notebooks talk you through one example application of the method and provide with all the code you need for the example
- Do you have any problem from your own research that you like to apply the method to?
- No? Then, pick one of the topics we suggest in the notebook

Project Schedule

What can you do?

- After the lunch break, please find yourself back here in groups
- We'll talk to each group to help them get started and with ideas
- Approach us any time to have any questions
- Depending on the exact number of groups we'll start tomorrow ~15:00 with small presentations of your results

Projects

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**Neural
Differential
Equations**

**Reservoir
Computing**

**Symbolic
Regression /
SINDy**