

Neural Network-based Detection of Taylor Vortices in Annular Flow Systems

Exposé for Master Thesis - Initial Presentation

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Problem Statment

Taylor-Couette Flow

- It is defined as a fluid dynamic phenomenon that occurs when a fluid is passing between two coaxial-rotating cylinders.
- Inner cylinder is typically rotating faster than outer cylinder. This configuration can lead to various flow patterns and instabilities.
- Dimensionless control parameters like Re, ration of cylinder radii,



Objectives



Approaches



Results

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Timeline

Litrature Review
Running the simulations
Data preparation
Training Network
Post-processing and Finalizing
Writing Thesis

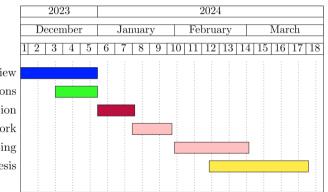


Abbildung: Timeplan



Thank you!

Any questions?