STU FCHPT
Slovak Univeristy of Technology in Bratislava
Department of Information Engineering and Process Control
IAM

ADCHEM 2024

Application of Machine Learning in Accelerating MPC for Chemical Processes

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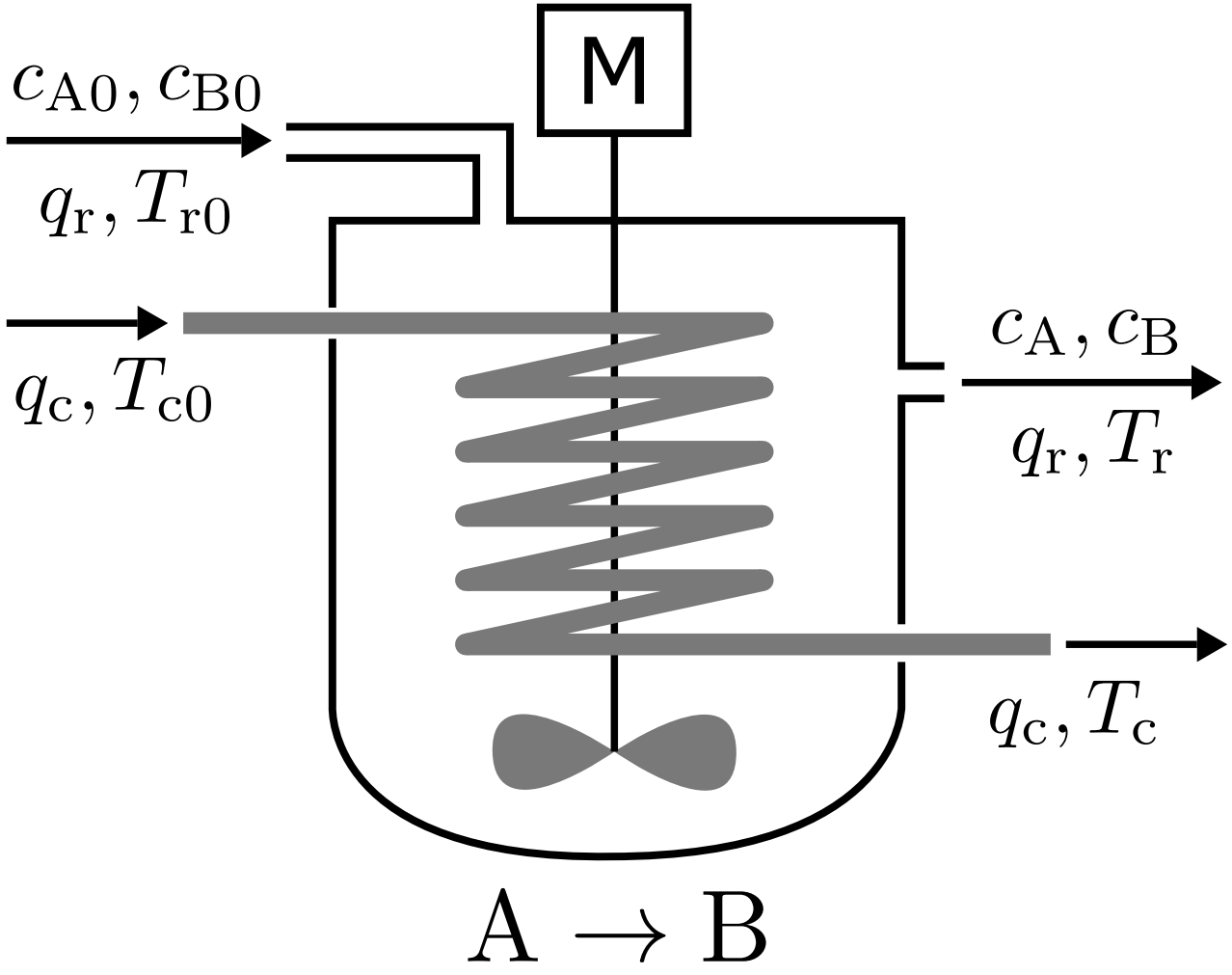
Acknowledgments: VEGA 1/0239/24, VEGA 1/0490/23, APVV-21-0019, APVV-20-0261, FrontSeat (HEU 101079342)

Content of the Workshop

- Creation of pseudocode
- Generation data for training
- Creation and training of NN
- Comparison of performance of NN and MPC
- Collaborative work in groups and discussion of achieved results

Continuous Stirred-Tank Reactor



Creation of Pseudocode

Download the Workshop Content

Data Generation

Creation and Training of NN

Simple Comparison

Split Into Groups of 2

Goals

- Satisfy input bounds
- Try to mimic the nMPC perfectly:
  - Wide architecture
  - Deep architecture
  - Crazy architecture?
- Try your champion NN on other datasets
- Create a general NN that works best on most of them
- Record the results

Discussion

DYCOPS 2025 | Bratislava Slovakia

June 16-19, 2025

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