

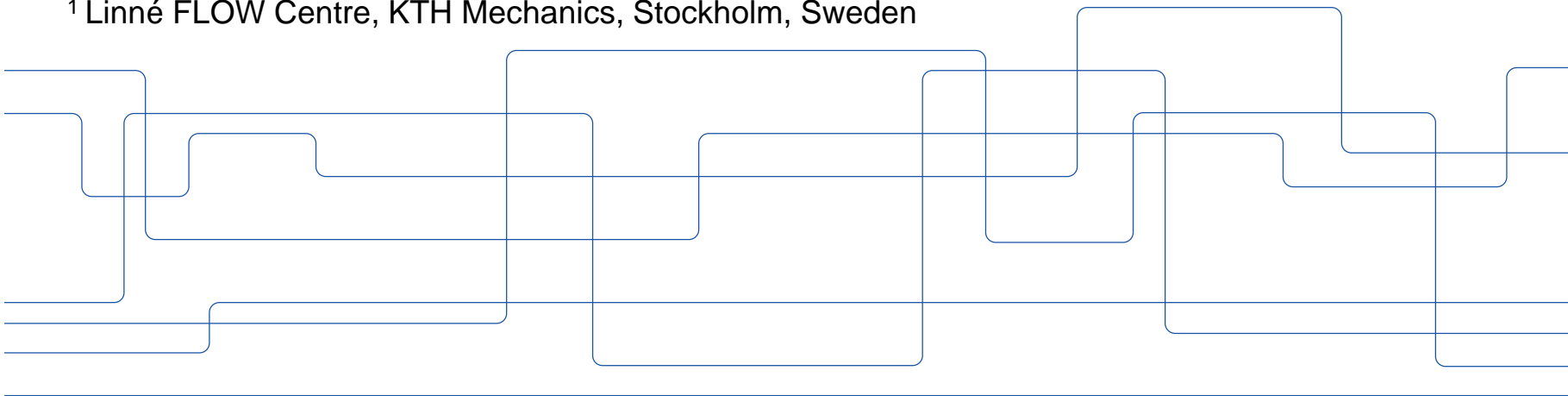


Hands-on session I: Regression (Environment setup)

FLOW School on Machine Learning - Dec 2nd, 2019

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Summary

- Introduction
- Docker
- Jupyter notebook



Introduction

The Github repository for the hands-on sessions is:

https://github.com/lguas/FLOW19_MLSchool

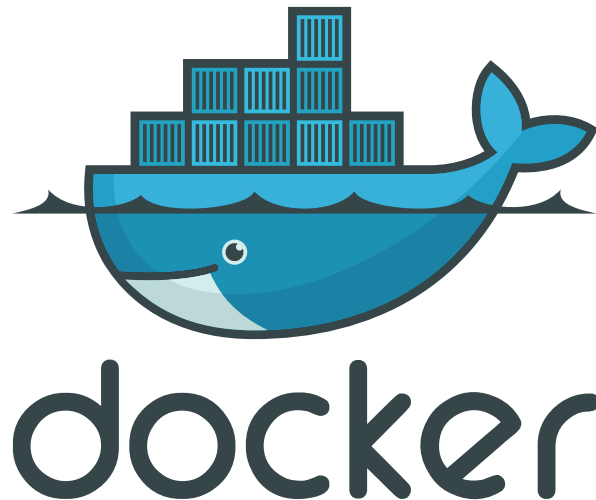
Today we will work with a Jupyter notebook. It can be run using:

- Docker
- Local python installation (e.g. Anaconda)
- Remote python installation

Instructions are available in the repository (and also this presentation)

Docker

- Docker is a open-source program that performs **operating-system-level** virtualization
 - Objective: isolate an application and its dependences to be able to run it everywhere
 - Simpler and lighter than a virtual machine
 - No need of a separate operating system
-
- Stand-alone **containers** are stored as read-only files called **images**
 - Several images are readily available through Docker Hub





Jupyter notebook

```
docker run -i -t -p 8888:8888 -v "$PWD:/home/" continuumio/anaconda3  
/bin/bash -c "/opt/conda/bin/jupyter notebook --notebook-dir=/home/ --  
ip='0.0.0.0' --port=8888 --no-browser --allow-root"
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With this command Docker runs the image with an interactive shell, forwarding the container port to the computer port, with the current path in the local computer mounted in the home folder of the container.

Within the container, we execute a command, which launches a Jupyter notebook with the required options



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