ORGANISATION

Lecture

- Tuesday, 4-6 pm, Emil-Figge-Straße 50 - HS 3
- Thursday, 4-6 pm, Emil-Figge-Straße 50 - HS 3

Andreas Groll (groll@statistik.tu-dortmund.de)

Exercises

- yet to be announced

Guillermo Briseno Sánchez (briseno@statistik.tu-dortmund.de)
ORGANISATION

Website

https://moodle.tu-dortmund.de/course/view.php?id=21855

Enrollment key: ASL2021

Exams

- 1st date: probably end of January 2021
- 2nd date: probably end of March/beginning of April 2021
GOALS

- learn to understand advanced models and analysing methods and are aware of their limitations
- become able to adapt methods to unusually structured data
- learn to choose appropriate methods for real data and apply them by means of statistical software
- understand the underlying mathematical theory

Partly builds upon the BA course “Introduction to Statistical Learning”.

⇒ For a short recap consult the pre-course eLearning slides with videos by Alexander Gerharz:

https://moodle.tu-dortmund.de/course/view.php?id=16736

(Password: vlds)
Introduction and Formalization
Classification Tasks
Hypothesis Spaces and Capacity
Risk Minimization
Univariate and Linear Modeling
Information Theory
(Multiclass Classification)
Curse of Dimensionality
Boosting
Advanced Performance Evaluation
Bayesian Optimization
Automatic Machine Learning
Feature Selection
14 Cost-Sensitive Learning
15 Imbalanced Classification problems
16 Advanced Trees and Forests
17 Deep Learning / Neural Networks
References