## Mathematical Foundations of Machine Learning MAT 280



- **Content:** The course will cover the mathematical background of supervised machine learning. It is intended for mathematicians interested in a theoretical understanding of the methods underlying current developments in artificial intelligence. Topics include: statistical learning theory, representation efficiency and (unreasonable?) effectiveness of deep nets, alternatives to neural networks.
- **Prerequisites:** Basic knowledge in linear algebra, analysis and probability theory is required as well as some elementary Hilbert space theory.

Lecturer: Michael M. Wolf (<u>m.wolf@tum.de</u>, office hours: by appointment)

- Time: Tuesday, Thursday 10:00-11:20am
- Place: MSB 3106
- Literature: Course notes and literature will be provided