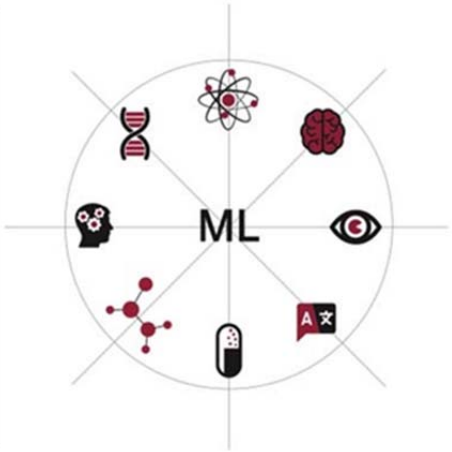

EXZELLENZCLUSTER

Maschinelles Lernen: Neue Perspektiven für die Wissenschaft

www.ml-in-science.uni-tuebingen.de

Cluster Kolloquium "Maschinelles Lernen"

Seminarreihe des Exzellenzclusters

Donnerstag 21. November 2019

14:00 - 15:00, anschliessendes Get Together

Hörsaal, AI Research Building
Maria von Linden-Str. 6 (Erdgeschoss), 72076 Tübingen

Biomarker Discovery in Clinical Time Series

Karsten Borgwardt
Department for Biosystems Science and Engineering, ETH Zürich, http://www.bsse.ethz.ch/mlcb
(Host: Fabian Sinz)

Mining time series for reoccurring patterns has a long history in Data Mining. Still, the digitalization of medical records and the wide-spread availability of personal digital devices are now bringing about datasets, whose scale, length and annotation detail create new Data Mining challenges on time series, with immense clinical implications. In my talk, I will describe these, in particular the problem of finding reoccurring motifs in time series and assessing their statistical significance, and its application in digital biomarker detection from intensive care unit records.

Biography:
Karsten Borgwardt is Full Professor of Data Mining at ETH Zürich, in the Department of Biosystems located in Basel. His work won several awards, including the 1 million EUR Krupp Award for Young Professors in 2013 and a Starting Grant 2014 from the ERC-backup scheme of the Swiss National Science Foundation. Prof. Borgwardt has been and is leading large national and international research consortia, including the “Personalized Swiss Sepsis Study” (2018-2021) and two Marie Curie Innovative Training Networks on Machine Learning in Medicine (2013-2016 and 2019-2022). In its January 12, 2018 edition, FOCUS Magazine included him in a list of "25 individuals who could shape the next 25 years".