A U S H A N G

FREIE UNIVERSITÄT BERLIN
Fachbereich Mathematik und Informatik

Promotionsbüro, Arnimallee 14, 14195 Berlin

D I S P U T A T I O N

Freitag, 16. Februar 2024, 14:30 Uhr

Ort: Seminarraum 032
(Fachbereich Mathematik und Informatik, Arnimallee 6, 14195 Berlin)

Disputation über die Doktorarbeit von

Gözde Kibar

Thema der Dissertation:
Exploring feature identificationand machine learning in predicting protein-protein interactions of disordered proteins

Thema der Disputation:
Machine learning for prediction of paired-data: Pitfalls and strategies

Die Arbeit wurde unter der Betreuung von **Prof. Dr. M. Vingron** durchgeführt.

Abstract: Machine learning has already been successfully applied to various facets of biological data. However, it is often the case that the employed strategies do not align well with the inherent characteristics of the data. The nature of the datasets used by the machine learning models can introduce additional problems that are not immediately apparent, causing standard evaluation methods to fall short. Understanding and evaluating machine learning models applied to pairs of entities, such as proteins, ligands, or drugs, presents a particularly challenging task due to the nature of the inputs and the lack of consistent and reliable frameworks. In this talk, I will initially discuss about general pitfalls in machine learning models for biological data. Subsequently, I will focus on the flaws in evaluation schemes for pair-prediction models including the challenges such as selection of training and test set, as well as the proposed evaluation schemes for machine learning models.

Die Disputation besteht aus dem o. g. Vortrag, danach der Vorstellung der Dissertation einschließlich jeweils anschließenden Aussprachen.

Interessierte werden hiermit herzlich eingeladen

Der Vorsitzende der Promotionskommission
Prof. Dr. M. Vingron