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

Montag, 14. März 2016, 16.00 Uhr

Ort: Raum 032, Arnimallee 6, 14195 Berlin

Disputation über die Doktorarbeit von

Herrn Adam Streck

Thema der Dissertation:
Toolkit for Reverse Engineering of Molecular Pathways via Parameter Identification

Thema der Disputation:
Discretization of Gene Expression Profiles

Die Arbeit wurde unter der Betreuung von Prof. Dr. H. Siebert durchgeführt.

Abstract: High-throughput measurements of gene expression are probably the most efficient instrument for establishing high-level behavior of cells to date. A significant portion of tools and methods developed in the field of systems biology depends on these measurements in some way. Consequently, techniques for processing and interpreting these data are of great importance, and there are numerous options, each highlighting different features of the dataset. One possible approach is to discretize the values, separating them into a few categorical groups that represent some qualitative feature, for example stating whether a gene is being transcribed at the time. Many methods of contemporary systems biology depend on discretization, which is however by itself a complicated technique. Since the discretization is the first step in a workflow, if it is done poorly, the subsequent results bear little value. In this talk we will discuss the possible pitfalls in data discretization as well as its advantages and present and discuss some of the popular techniques.

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

Interessierte werden hiermit herzlich eingeladen

Die Vorsitzende der Promotionskommission
Prof. Dr. H. Siebert