

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. Dezember 2015, 10.00 Uhr

Ort: SR 005, Takustraße 9, 14195 Berlin

Disputation über die Doktorarbeit von

Herrn Xintian You

Thema der Dissertation:

Tailored Analysis in Studying Transcriptome Landscape

Thema der Disputation:

Sequence alignment methods for NGS studies

Die Arbeit wurde unter der Betreuung von **Prof. Dr. K. Reinert** durchgeführt.

Abstract: Sequence alignment is the most important task in biological studies that employ sequencing experiments. Accurate assignment of a read to its origin not only lays the foundation for further analysis, but also is the rate-limiting step in the analysis. Since the past decade, many methods have been developed and applied to a variety of biological/medical researches. Due to the complexity of transcriptome and various questions to address, different data structures and heuristics were implemented. In the first part of the presentation, methods for NGS read alignment will be reviewed and BWA-MEM will be discussed in detail. In the second part of the presentation, the thesis titled 'Tailored Analysis in Studying Transcriptome Landscape' will be summarised.

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. K. Reinert