Berlin Mathematics Research Center MATH+

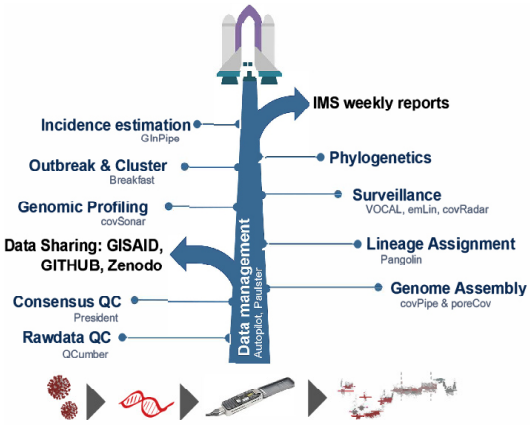
Berlin Mathematical School BMS

MATH+ Friday Colloquium

Friday 29 April 2022 at 14:15

TU Berlin, EW-Gebäude (Physics Building), Room EW 201

Tea & Cookies starting at 13:00!



Max von Kleist

(Robert Koch Institute)

Data science for COVID research and in policy design

In late 2019, a novel virus appeared in the Hubei province in China causing severe respiratory symptoms. By spring 2020, the virus, now termed "severe acute respiratory syndromes corona virus 2" (SARS-CoV-2), had spread globally. Two years later, by April 2022, the global pandemic is still ongoing and the virus has already infected over 500 million individuals. During the entire time, unprecedented amounts of data and knowledge of the virus and disease accumulated and were shared publicly. These data needed to be put into actionable assessments and recommendations, while evidence, pharmacological means and the virus itself were evolving.

In this talk, Max von Kleist will present approaches that utilize primary and secondary data of SARS-CoV-2 that allow to permanently monitor and assess the pandemic and that can support the choice of containment strategies.

Max von Kleist started his PhD in Mathematics at MATHEON in 2006 and completed it at the Hamilton Institute in Ireland in 2009. He then joined Christof Schütte's group at FU Berlin for a brief postdoctoral period before starting a junior research group at MATHEON, followed by a BMBF funded junior research group at FU Berlin. In 2019, he started at the Robert Koch Institute, and in 2020, he became the head of the "Bioinformatics research unit" (MF1). This unit was then split into two operational groups and Max von Kleist currently heads the "Project Group 5: Systems Medicine of Infectious Diseases". His research focuses on methods development in biomedical data science, modeling, simulation and optimization, as well as on applications in infectious disease research.