

# HABILITATION

Fachbereich Mathematik und Informatik

## EINLADUNG

zum Habilitationsvortrag

Im Rahmen seines Habilitationsverfahrens wird

**Herr Dr. Jochen Kruppa**

am Montag, d. 13. Mai 2024

um 14:30 Uhr im Seminarraum, Zuse Institut Berlin, Takustr. 7, 14195 Berlin

einen Vortrag über das Thema:

## **A world beyond $p = 0.05$ - Why hang on to frequentist statistics and not switch to Bayesian statistics?**

halten.

Der Vortrag wird ca. 45 Minuten dauern (Zusammenfassung s.u.).

Die Universitätsöffentlichkeit ist dazu herzlich eingeladen.

gez. Prof. Dr. G. Rote

Dekan des FB Mathematik und Informatik

Abstract: Data, it all begins with data. Just over a hundred years ago, modern statistics began with the hiring of a young scientist, Roland A. Fisher, at the Rothamsted Experimental Station. What had happened? In 1919, John Russell of the Rothamsted Experimental Station went to Cambridge to find a statistician who could make sense of the mass of data that had accumulated over 80 years of growing trials. Fisher, on the other hand, wanted to do independent research in an area he had already made his own: small sample statistics. Fisher, however, was starting from scratch because there was no technical way to process the data. His work laid the foundation for experimental design and frequentist statistics. Thus, frequentist statistics is the answer to the limitation of its era. 200 years before Fischer, Thomas Bayes found the solution John Russell had been looking for, but it would take until the 22nd century before we could use Bayesian statistics widely. But why conjunctive? This is the question my talk will address. Because this is where ideas from mathematics are combined with implementation in computer science to find an answer to the questions of the present and the future in applied statistics. Finally, we will discuss together the challenges that arise in the teaching of Bayesian statistics.