

Im Oberseminar

Deformationsquantisierung

spricht am **08.03.18 um 14 Uhr c.t.**,

im Seminarraum 00.009 (Physik Ost)

STEPHAN HUCKEMANN

über das Thema:

Non-Euclidean Statistics

In order to statistically analyze data on non-Euclidean spaces, such as spheres, shape spaces, or more complicated manifold stratified spaces, we first review some basic statistical hypothesis testing and dimension reduction techniques. Then we discuss intricacies of non-Euclidean central limit theorems, non-Euclidean principal component methods and see, among others, that some elementary spaces are variably benevolent towards this later task, calling for deformation of canonical geometry. Finally, we discuss hypothesis testing in a very general non-Euclidean setting and we illustrate the theory presented with applications to RNA structure analysis and adult stem cell diversification. We conclude with a selection of challenges in Non-Euclidean Statistics.

gez. Knut Hüper