

Institut für Statistik

Vortrag

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Statistical inference for random orientations of symmetrical objects

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Abstract:

The orientations of symmetrical objects in three-dimensional Euclidean space correspond to elements of the quotient space $SO(3)/K$, where K denotes the symmetry group. Such objects naturally occur in crystallography, materials science, biochemistry, and other fields. When performing the statistical analysis of these manifold-valued data, it is essential to account for the specific properties of the space $SO(3)/K$. In this talk, we will discuss selected statistical problems, with a particular focus on independence testing.

M. Neumann