Department of Mathematics and Statistics
The Dresden Memorial Lectures

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Geometry of Tensors

Tuesday, Nov. 28th, 2017
Applications of Tensors and their Eigenvectors

Eigenvectors of square matrices are central to linear algebra. Eigenvectors of tensors are a natural generalization, with many emerging applications. This lecture offers a first introduction, with numerous pictures.

Wednesday, Nov. 29th, 2017
Gaussian Mixtures and their Tensors in Data Science

Mixtures of Gaussians are ubiquitous in data science. We discuss the geometry of these statistical models, with focus on tensors of moments. The rank of symmetric tensors arises when all covariance matrices are zero. We present work with Amendola and Ranestad that characterizes Gaussian mixtures that are identifiable from their moments.

SCIENCE CENTER 199
4:15PM REFRESHMENTS - 4:30PM LECTURE