

MICHIGAN STATE UNIVERSITY
Department of Statistics and Probability

COLLOQUIUM

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Tensor-valued Random Fields in Continuum Physics

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10:20 AM - 11:10 AM

Refreshments 10:00 AM

C405 Wells Hall

Abstract

We give a short survey on the mathematical methods and tools that are necessary for solving the fundamental problem of the theory of tensor-valued random fields: to find the general forms of the one- and two-point correlation tensors of a homogeneous and isotropic field as well as its spectral expansion. It has been known for a long time that the theory of random fields is linked to group theory, invariant theory, and special functions. A new link to the theory of finite-dimensional convex compacta has been established and will be briefly explained.

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