



Oberseminar zur Algebra und Algebraischen Kombinatorik

Jun. Prof. Dr. Thomas Kahle
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"The geometry of gaussoids"

Gaussoids are combinatorial structures that encode independence in probability and statistics, just like matroids encode independence in linear algebra. We show that the gaussoid axioms of Lnenicka and Matus are equivalent to compatibility with certain quadratic relations among principal and almost-principal minors of a symmetric matrix. This approach facilitates insights into symmetry and realizability of gaussoids as well as extensions to oriented gaussoids, positive gaussoids, and valuated gaussoids, revealing connections to real and tropical geometry, and MTP2 distributions in statistics.
(Based on joint work with T. Boege, A. D'Ali, and B. Sturmfels.)

Montag, 29.01.2018
ab 14:15 Uhr, a410

Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

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und Diskrete Mathematik