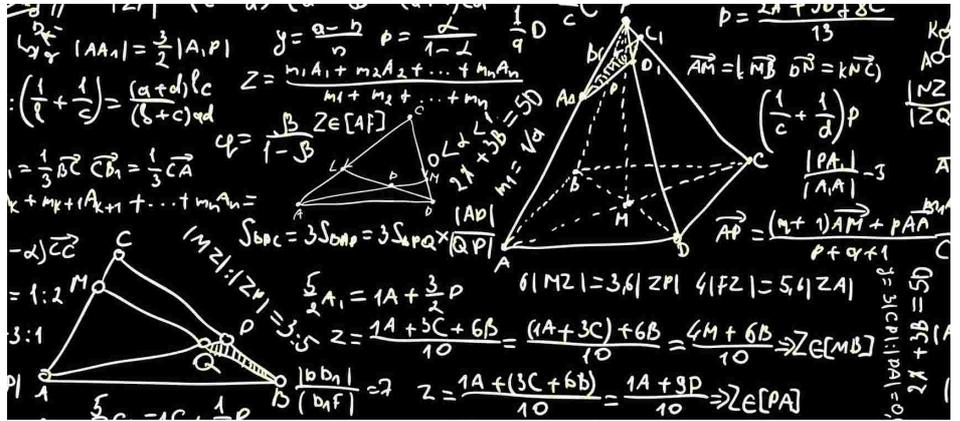


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23

17:15



# Mathematik Kolloquium Innsbruck

**Bernd Sturmfels**

MPI Leipzig/UC Berkeley

## Gibbs Manifolds

Gibbs manifolds are images of linear spaces of symmetric matrices under the exponential map. They arise in applications such as optimization, statistics and quantum physics, where they extend the ubiquitous role of toric geometry. The Gibbs variety is the zero locus of all polynomials that vanish on the Gibbs manifold. We compute these polynomials and show that the Gibbs variety is low-dimensional. Our theory is applied to a wide range of scenarios, including matrix pencils and quantum optimal transport. This joint work with Dmitrii Pavlov and Simon Telen.

Montag 23. Oktober 2023, 17:15 Uhr, HSB 9

Gäste und Studierende sind herzlich willkommen!

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