Title: Optimal Gaussian Partitions
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Abstract: Suppose $X_1,...,X_k$ are n-dimensional Gaussian vectors with a given covariance structure. What is the partition of R^n into r sets of given Gaussian measures $m_1,...,m_r$ which maximizes P[$(X_1,...,X_k)$ fall in the same part of the partition] ?

I will give an overview of what is known and conjectured about this question in various setups as well as various reasons for studying it and connections to classical isoperimetric problems.