

## AG Analysis & Stochastik

### Analysis & Stochastics Seminars

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28.04.2022 (Thu), 02:00 pm

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Recent theoretical results about Hilbert space embeddings of probabilities

Abstract:

We review some recent theoretical results about Hilbert space embeddings of probabilities, like the fact that Gaussian kernels on Hilbert spaces define an inner product in the space of measures with bounded variation and that the standard metric in Hilbert and real/complex hyperbolic spaces are of the strong negative type. We also present the concept of positive definite independent kernels, which generalizes the concepts of Hilbert Schmidt Independence Criterion and Distance Covariance, provides a metric in the space of couplings, and are related to Bernstein functions with 2 variables.

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