

Random Kähler Metrics

Frank Ferrari, Semyon Klevtsov, Steve Zelditch

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The purpose of this article is to propose a new method to define and calculate path integrals over metrics on a Kähler manifold. The main idea is to use finite dimensional spaces of Bergman metrics, as an approximation to the full space of Kähler metrics. We use the theory of large deviations to decide when a sequence of probability measures on the spaces of Bergman metrics tends to a limit measure on the space of all Kähler metrics. Several examples are considered.

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