Fluctuations of the increment of the argument for the Gaussian Entire Function

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The Gaussian Entire Function is a random entire function, which possesses a certain invariance with respect to isometries of the plane. We will discuss the fluctuations of the increment of the argument of the Gaussian entire function along planar curves. The fluctuations are asymptotically normal.

The limiting covariance is describe by an inner product on finite formal linear combinations of curves, that we call the signed length.

This is a joint work with Jerry Buckley.