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Distributions of the maxima of the two-dimensional Gaussian free field

The two-dimensional Gaussian free field is a model of a random surface whose correlations are given by the Green's function of the simple random walk. In this talk, I will present recent results by several authors in understanding the statistics and the geometry of the maxima of this random surface. The results strongly suggest that the maxima of the model behave similarly as fields in a broad universality class, the so-called log-correlated fields. In particular, I will highlight the close connection with the maxima of branching Brownian motion.