



THE UNIVERSITY OF
CHICAGO

Department of Statistics

DISSERTATION PROPOSAL

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Extreme Values of Log-Correlated Gaussian Fields

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ABSTRACT

Extreme values and entropic repulsion for two-dimensional discrete Gaussian free fields are of significant interest and have been a subject of many recent works. I plan on generalizing results on extreme values for a general class of Gaussian fields with logarithmic correlations, of which the Gaussian membrane model at the critical dimension is a particular example. I also plan on finding finer estimates on entropic repulsion of GFF which has previously computed up to the level of exponent of highest order term.