

Entropic Repulsion of Gaussian Free Field by an Interval

Thursday, May 15, 2025 11:30 AM (30 minutes)

Motivated by understanding the behavior of spin $O(N)$ models at low temperature, we study the law of the discrete vector-valued 2D Gaussian Free Field conditioned to avoid an N -dimensional ball. In this talk, I will explain the connection between these two types of objects and focus on the case of spin dimension $N = 1$. In this case, the phenomenon of entropic repulsion emerges, along with an ordering of the signs of the conditioned field. I will sketch the proof of this behavior.

Joint work with A. Sepúlveda.

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