# SEMINAR ON STOCHASTICS
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# Some Exceptional Configurations

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A Gibbs measure on configuration space models random particles in Euclidean space that interact via a potential function. The Dirichlet form given by integrating the intrinsic gradient against such a Gibbs measure is associated with a Markov process consisting of a countable family of interacting diffusions. By considering each diffusion as a particle with unit mass, the randomly evolving configuration can be thought of as a Radon measure valued diffusion.

The quasi-sure analysis of Dirichlet forms is used to find exceptional sets of configurations for this Markov process. We consider large scale properties of the configuration and show that, for certain Gibbs measures, the process never hits those unusual configurations that violate the law of large numbers or the law of the iterated logarithm.

**Tuesday February 22; 3:05 p.m.–3:55 p.m.; JTB 120**