

DETERMINANTAL POINT PROCESSES: GIBBIANNESS AND DYNAMICS

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Determinantal (also called fermion) point processes are point processes (on discrete or continuous spaces) whose correlation functions are given by determinants of matrices coming from certain kernel functions. In this talk we start with a couple of examples where DPP's appear. Focusing on the discrete DPP's, we discuss the Gibbianness of them. We benefit from this property to construct some dynamics that leave a DPP invariant. We will typically construct Glauber and Kawasaki dynamics for DPP's.