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Markov chains on partitions and time-dependent point processes

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Abstract

I will present new examples of continuous time Markov processes on infinite point configurations. Some of these processes have determinantal space-time correlation functions, and other processes depend on the beta (or Jack) parameter. The common feature of all examples is that they arise, via limit transitions, from certain natural Markov chains and Markov jump processes on the set of partitions. The key point is the survival of the Markov property in the scaling limit transitions.