

Transformation of Markov Jump processes and applications in genetic study

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Recently in the study of genetic coalescent with recombination, we encountered an interesting example of Markov jump process with continuous state space. For the purpose of our study, apart from making use of some existing results, we need also to develop some new results concerning Markov jump processes. In particular, we need to investigate the behaviour of Markov jump processes under transformations of state spaces. The latter by its own is also of importance in the theory of Markov processes. In this talk I shall report our results (joint with X.Chen et.al.) in this research direction.