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*The Reversibility of Interacting Fleming–Viot Processes*

Fleming–Viot process is a mathematical model in population genetics. It is a probability-measure-valued process describing the relative frequencies of allelic types in a large population undergoing mutation, selection and genetic drift. The interacting Fleming–Viot process describes the evolution of a collection of Fleming–Viot processes in which those Fleming–Viot processes interact with each other through migration.

Reversibility is an interesting problem in theoretical population genetics. In this talk we are going to show that the interacting Fleming–Viot process, as a Markov process, is not reversible if both the migration and the mutation are non-degenerate.

This talk is based on joint work with A. R. Kermayn and D. A. Hickey and with Shui Feng, Byron Schmuland and Jean Vaillancourt.