SUPPORT PROPERTIES OF Λ-FLEMING-VIOT PROCESSES WITH BROWNIAN SPATIAL MOTION

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KEY WORDS: Λ-Fleming-Viot process, Λ-coalescent, lookdown construction, Hausdorff dimension

MATHEMATICAL SUBJECT CLASSIFICATION: 60G57

Abstract:

Fleming-Viot process is a probability-measure-valued superprocess for population genetics. Roughly, the Λ-Fleming-Viot process is a Fleming-Viot process with general reproduction mechanism. For a class of Λ-Fleming-Viot processes with Brownian spatial motion whose associated Λ-coalescents come down from infinity, we prove the compact support property and identify a one-sided modulus of continuity on propagation of the supports. We also find bounds on Hausdorff dimensions for the support. The lookdown representation of Donnelly and Kurtz [1] for Fleming-Viot process is crucial to our arguments.

This talk is based on Liu and Zhou [2] and Liu and Zhou [3].

References

[1] P. Donnelly & T. G. Kurtz (1999). Particle representations for measure-valued population models, *Ann. Probab.*, *27*, 166-205.

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