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Support properties of a class of Lambda-Fleming-Viot processes with underlying Brownian motion

The Λ -Fleming-Viot process is a Fleming-Viot process with re-sampling mechanism associated to Λ coalescent, the coalescent allowing multiple collisions. For such a Λ -Fleming-Viot process with underlying Brownian motion, we show that its support is almost surely compact at any fixed positive time when the associated Λ -coalescent comes down from infinity fast enough. We also find both upper and lower bounds on Hausdorff dimension of the support. The lookdown construction of Donnelly and Kurtz plays a key role in our arguments.

This talk is based on joint work with Huili Liu.