

Hydrostatics for Glauber-Kawasaki processes

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Abstract

We consider in this talk the scaling limit of the stationary state for Glauber-Kawasaki process. In the decades, the stationary states of particle systems have emerged in study of Macroscopic Fluctuation Theory. The main topic of this talk will be focused on the hydrostatic limit, which is formalized as law of large numbers for stationary states. Since the hydrodynamical equation of Glauber-Kawasaki process admits an infinite number of stationary solutions in general, the proof of the hydrostatic limit is not trivial even though one can naturally expect the limit of the stationary state. I will present results on hydrostatic limit for two types of Glauber-Kawasaki processes, a reaction-diffusion model and an exclusion process with speed change and slow boundary.

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