

Center for Soft Matter and Biological Physics

Discussion Meeting

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"Transverse Temperature Interface in Katz-Lebowitz-Spohn Model"

Friday, June 22, 2018

1:30 pm—2:30 pm

304 Robeson Hall

Driven lattice gas with attractive nearest neighbor interactions and periodic boundaries demonstrate intriguing dynamics, when parts of lattice held at different temperatures. In two di-mensions, this complex system experiences a jamming transi-tion in the high temperature zone, and forms stripes in the low temperature regions. Density profiles are strikingly similar with those for Asymmetric Exclusion Process (ASEP) with open boundary conditions when injection and ejection rates are equal. In this talk, I will discuss the dynamics of two-temperature driven lattice gas sys-tem and characterize its density profile using analytical results and Monte Carlo simulations.