Stochastic Dynamics of Partitions and Emergent Limit Shapes

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Abstract

Using a representation of partitions through Young diagrams, one can endow them with various natural stochastic dynamics. Growing partitions usually become more and more deterministic in the long time limit, that is after a proper re-scaling they attain limit shapes. Some of the limit shapes can be computed using a mapping onto lattice gas models. I'll also outline how to probe fluctuations and discuss extensions to higher dimensions where little is known so far.