Conductance, Laplacian and mixing rate in discrete dynamical systems. (English summary)

In this paper the authors introduce the concept of conductance of an ergodic Markov interval map in order to measure the ability of the map to spread. Moreover, they relate the conductance to the first nonzero eigenvalue of the discrete Laplacian associated to the map and to the mixing rate of the map. The concordance, the mixing rate and the discrete Laplacian are studied for special families of unimodal and bimodal maps. For describing the dynamical properties of these maps the authors use symbolic dynamics.

Reviewed by Karsten Keller

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