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Abstracts of Short Communications and Posters

Section:

12. Probability and Statistics

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Liemant, Alfred, Weierstraß-Institut Berlin, Germany

Hopping transport of charge carriers on a disordered lattice.

The parameters of the microscopic hopping dynamics are the lattice site concentration, the energy state density and the jump rate obeying a detailed balance. On a large time–space scale, within a mean field approximation a non–linear drift–diffusion equation is derived. Diffusivity and mobility are calculated from the microscopic characteristics of the hopping dynamics.