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Random walks on networks[1] ISAAC DONNELLY, Northeastern — Random walks on lattices are a well used model for diffusion on continuum. They have been to model subdiffusive systems, systems with forcing and reactions as well as a combination of the three. We extend the traditional random walk framework to the network to obtain novel results. As an example due to the small graph diameter, the early time behaviour of subdiffusive dynamics dominates the observed system which has implications for models of the brain or airline networks.

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