



The Open-Access Journal for the Basic Principles of Diffusion Theory, Experiment and Application

## **The diffusion of value in production networks**

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(Received: 2023/08/17, Published online: 2023/08/28)

Recent history has focussed our attention on the consequences of complex production networks: the supply chain problem. Here we investigate the the short- and long-run consequences of a single shock in constant-returns-to-scale production technologies. All such competitive models have a price turnpike, a single ray of prices to which market prices will converge even though consumption paths may be much less well-behaved. We bound worst-case rates of convergence to the ray, relate the bounds to properties of the production network topology, and demonstrate that the short-run behavior of competitive price paths can be quite wild far from the long-run steady state.