

Abstract Submitted
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Fluctuation ratios in reaction-diffusion systems SVEN DOROSZ,
MICHEL PLEIMLING, Virginia Polytechnic Institute and State University — We study fluctuations in diffusion-limited reaction systems driven out of their stationary state. Using a numerically exact method, we investigate fluctuation ratios in various systems which differ by their level of violation of microscopic time reversibility. Studying a quantity that for an equilibrium system is related to the work done to the system, we observe that under certain conditions oscillations appear on top of an exponential behavior of transient fluctuation ratios. We argue that these oscillations encode properties of the probability currents in state space.

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