
Frequency regulators for the nonperturbative renormalization group in nonequilibrium systems

Charlie Duclut*¹

¹Max Planck Institute for the Physics of Complex Systems – Germany

Abstract

We derive the necessary conditions for implementing a regulator that depends on both momentum and frequency in the nonperturbative renormalization group flow equations of out-of-equilibrium statistical systems. We consider model A as a benchmark and compute its dynamical critical exponent z . This allows us to show that frequency regulators compatible with causality and the fluctuation-dissipation theorem can be devised.

*Speaker