

Abstract: "Noise-Induced Strong Stability"

We examine a 2-dimensional ODE which exhibits explosion in finite time. Considered as an SDE with additive white noise, it is known to be stable - in the sense that for each initial condition there is almost surely no explosion. Furthermore, the associated Markov process even admits an invariant probability measure. The question of interest is whether the noise also induces a stronger concept of stability, namely the existence of an attractor. We give two examples which answer the question in different ways.

Joint work with M. Scheutzow.