

# **Bifurcation analysis of uncertain dynamical systems**

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In this talk we are mainly concerning with the bifurcation analysis of dynamical systems including some uncertainty. Firstly we overview the concept of bifurcation analysis where we introduce the mathematical definitions of several different bifurcation types and illustrate these types on the some graphs. Secondly we indicate the needs for stochastic dynamical systems and finally we illustrate the effect of the noise on the bifurcation analysis of so-called random dynamical systems.

**Keywords:** Stochastic dynamical systems, bifurcation, noise, chaos.