

## ***THE COEXISTENCE PHENOMENON IN DYNAMICAL SYSTEMS***

**Speaker:** Professor Huyi Hu  
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**Time:** Thursday, April 25, 2024, 16:50-17:50

**Venue:** Room 2001, East Main Guanghua Tower

**Abstract:** A volume preserving dynamical system exhibits coexistence phenomenon if it consists of two invariant sets of positive volume, the regular part and chaotic part, on which the Lyapunov exponents are all zero and all nonzero respectively. Further, the system is ergodic on the chaotic part. If the regular set is nowhere dense, then we say that the system exhibits essential coexistence phenomenon. In this talk we introduce some examples of systems exhibiting coexistence and essential coexistence phenomenon obtained from early eighties to the recent years.