SRB MEASURES FOR INFINITE DIMENSIONAL DYNAMICAL SYSTEMS

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Abstract: This talk contains three parts: (1) the existence of SRB measures and their properties for infinite dimensional dynamical systems; (2) The existence of strange attractors with SRB measures for parabolic PDEs undergoing Hopf bifurcations driven by a periodic forcing with applications to the Brusselator; (3) Positive entropy implying the existence of horseshoes for infinite dimensional dynamical systems. This is based on joint works with Wen Huang, Zeng Lian, Qiudong Wang, and Lai-Sang Young.