PIMS / AMI Seminar

Tuesday, December 1, 2015
2:00 p.m.
CAB 657

"Stable Sets and Chaos in Positive Entropy Systems"

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Abstract

In this talk, I will present the chaotic phenomenon of a dynamical system with positive entropy. It is shown that a dynamical system has positive entropy if and only if it has a weak horseshoe. Particularly, I will show that a Lorentz attractor has a weak horseshoe. Moreover, I will present the Hausdorff dimension and the chaotic behavior of stable sets and unstable sets in a C1-diffeomorphism system with positive entropy. The lower bound of the Hausdorff dimension of these stable sets and unstable sets is given in terms of the metric entropy and the largest Lyapunov exponent.

Refreshments will be served in CAB 649 at 3:00 p.m.