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Li-Yorke chaos and Cantor attractors for maps on the interval

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(joint work with Victor Jimenez-Lopez)

Whereas most unimodal interval maps are either chaotic in any mathematical sense of the word, or have periodic attractors attracting almost every point, there are unimodal maps with more interesting attractors. Such attractors are Cantor sets, and the dynamics on them is less chaotic: e.g. entropy and Lyapunov exponents are 0. In this talk, I want to explain that regarding the existence of Li-Yorke pairs (i.e., points x, y such that $0 = \liminf |f^n(x) - f^n(y)| < \limsup |f^n(x) - f^n(y)|$), these attractors can still be quite interesting.