CAFE-Dyn
Workshop in Complexity, Aperiodicity, Fractal and Ergodicity in Dynamics
February 10, 11 and 12, 2026 *IMECC - UNICAMP - Campinas (Brazil)*

A Garden of Eden Theorem for Smale Spaces

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Smale spaces were introduced in the late 1970s by David Ruelle in his influential monograph on thermodynamic formalism. These dynamical systems include: Anosov diffeomorphisms, non-wandering sets of Smale's Axiom A diffeomorphisms, various types of solenoids and attractors, as well as (in a symbolic dynamical setting) subshifts of finite type.

In a recent joint work with Michel Coornaert, we proved, among other things, a Garden of Eden type theorem (GOET) for irreducible Smale spaces. This generalizes previous results by Fiorenzi (GOET for irreducible subshifts of finite type) and ours (GOET for Anosov diffeomorphisms on tori). We study Gibbs equilibrium states for intermittent interval maps with a neutral fixed point at zero. We discuss several aspects of the thermodynamic formalism, including the exponential mixing properties of these Gibbs states, as well as the behavior of the transfer operator and the pressure associated with Hölder continuous potentials.

SLIDES

Wednesday - February 11, 2026 - 10:00 - 11:00
253 - Thesis Defense Room - 2nd Floor IMECC