Pressures for semigroups of maps

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I will talk about several new dynamical notions of entropy and pressure for multi-potentials \( \Phi \) with respect to finitely generated semigroups \( G \) of endomorphisms. A measure-theoretic amalgamated entropy is also defined and we prove a Variational Principle for the amalgamated pressure \( P^A(\Phi) \).

Then, for semigroups of differentiable maps on manifolds having \( G \)-stable and \( G \)-unstable cone fields, we apply the amalgamated pressure of the associated unstable multi-potential \( \Phi^u \), to estimate the Hausdorff dimension of the slices transversal to the stable directions.