

# 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.