Localized pressure and equilibrium states.

We introduce the notion of localized topological pressure for continuous maps on compact metric spaces and establish a local version of the variational principle for several classes of systems and potentials. Going further, we study localized equilibrium states and show that even in the case of subshifts of finite type and Hölder continuous potentials, there are several new phenomena that do not occur in the theory of classical equilibrium states. In particular, ergodic localized equilibrium states for Hölder continuous potentials are not unique. It is even possible to have infinitely many. (Received August 25, 2015)