

1125-37-1076

Christian P Wolf* (cwolf@ccny.cuny.edu), 160 Convent Ave, New York, NY 10031. *Are rotation sets and localized entropies computable?* Preliminary report.

Given a continuous dynamical system $f : X \rightarrow X$ on a compact metric space X and a m -dimensional continuous potential $\Phi = (\phi_1, \dots, \phi_m) : X \rightarrow R^m$, the generalized rotation set $Rot(\Phi)$ is defined as the set of all μ -integrals of Φ , where μ runs over all invariant probability measures. Analogously to the classical entropy of f , one can associate to each $w \in Rot(\Phi)$ the localized entropy $H(w)$ at w . In this talk, we consider the question about the computability of rotation sets and localized entropies. We present positive results for subshifts of finite type and interior points of the rotation set. We also show that the situation is more complicated when dealing with points at the boundary of the rotation set. (Received September 14, 2016)