1016-37-15 **C. P. Wolf*** (cwolf@math.wichita.edu), Department of Mathematics, Wichita State University, Wichita, KS 67260, and **K. Gelfert**. *Topological Pressure via Saddle Points.*

Let Λ be a compact locally maximal invariant set of a C^2-diffeomorphism $f : M \to M$ on a smooth Riemannian manifold M. In this talk we study the topological pressure $P_{\text{top}}(\varphi)$ (with respect to the dynamical system $f|\Lambda$) for a wide class of Hölder continuous potentials and analyze its relation to dynamical, as well as geometrical, properties of the system. We show that under a mild nonuniform hyperbolicity assumption the topological pressure of φ is entirely determined by the values of φ on the saddle points of f. This is a joint work with K. Gelfert. (Received December 16, 2005)