1014-49-642 **Elena Constantin*** (constane@pitt.edu), Department of Mathematics, University of Pittsburgh at Johnstown, 130 Krebs Hall, Johnstown, PA 15904. *Second Order Optimality Conditions Based on Second Order Tangent Cones.*

The goal of this talk is to formulate some second order necessary conditions for the optimality of a locally Lipschitz functional $F : X \to \mathbb{R}$ on a subset S of a normed space X in terms of the first and second order tangential directions to S at the extremum point. An example in which the constraint set is given by a differential equation is also discussed. (Received September 21, 2005)