

SEMINIAR OPTIMIZATION AND EQUILIBRIUM

EXPOSITOR

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TITLE

A VARIATIONAL APPROACH TO SECOND-ORDER OPTIMALITY

ABSTRATC:

Conditions associated with local optimality, whether necessary or sufficient, have traditionally been approached through techniques of generalized differentiation. On the first-order level, this has been a long-standing success, although serious challenges remain for equilibrium constraints and the like. On the second-order level, a difficulty arises with the complex concepts of generalized second derivatives and the sometimes-inadequate calculus for determining them.

In fact, sufficient second-order conditions of a practical sort, which are the most important aid for numerical methodology are largely lacking outside of classical frameworks like nonlinear programming. In nonlinear programming, well known conditions like so-called strong second-order optimality are tied to a convexity-concavity property of an augmented Lagrangian function. It turns out that this pattern can be developed in vastly larger territory by exploiting the recently introduced concept of variational convexity.

Miércoles 20 de noviembre a las 16:00 hrs, Sala de Seminarios John Von Neumann CMM, Beauchef 851, Torre Norte , Piso 7.