



Próximo Seminario DMAT

Jueves 16 de Mayo de 2019, 11:30 - 12:30

Sala de Seminarios, DEPARTAMENTO DE MATEMÁTICA

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Second-order Characterizations for the Quasiconvexity and Pseudoconvexity of $C^{1,1}$ -smooth Functions

For a C^2 -smooth function on a finite-dimensional space, a necessary condition for its quasiconvexity is the positive semidefiniteness of its Hessian matrix on the subspace orthogonal to its gradient, whereas a sufficient condition for its strict pseudoconvexity is the positive definiteness of its Hessian matrix on the subspace orthogonal to its gradient. Our aim in this talk is to extend those conditions for $C^{1,1}$ -smooth functions by using the Fréchet and Mordukhovich second-order subdifferentials.