

Seminario Optimización y Equilibrio

Speaker: Raúl Tintaya, Postdoc - CMM

Title: Dynamical systems associated with a class of quasiconvex functions.

Abstract:

In this talk, we examine second-order gradient dynamical systems with Hessian-driven damping for smooth strongly quasiconvex functions, without relying on the common assumption of Lipschitz continuity for the gradient. We demonstrate that these dynamical systems ensure exponential convergence of the trajectories to an optimal solution. Furthermore, we show that explicit discretizations of these dynamical systems yields (accelerated) gradient-based methods, and we stabilised linear convergence of these methods under suitable parameter choices.

Miércoles 16 de Octubre de 2024, a las 16:15 hrs.

Sala de Seminarios John Von Neumann del Centro de Modelamiento Matemático (Beauchef 851, Edificio Norte, Piso 7).

