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Optimization and Equilibrium Seminar

Speaker: Terry Rockafellar, University of Washington, USA

Title: Problem Decomposition in Convex Optimization: Advances Beyond ADMM.

Abstract: Applications of convex optimization in areas like image processing and machine learning have stimulated a huge interest in solution methodology that can take advantage of underlying decomposable structure in a problem, especially when iterations can make good use of "prox" mappings on the problem's components. Very popular in this development has been the Alternating Direction Method of Multipliers (ADMM). But other approaches that branch out from the same mathematical roots in different modes now offer new advances in the flexibility of problem formulation and the types of convergence that can be guaranteed. The Progressive Decomposition Algorithm (PDA) will be explained from that angle in this talk. Besides readily covering a lot more territory in problem formulation, it provides a solid path to extension into nonconvex optimization --- if other techniques can some day be devised for getting, at least, close to local optimality.

Link de zoom:
https://reuna.zoom.us/j/5185702306?pwd=cEtaeGVqUk1ZY0lkQ2Z0WU4yNlFmUT09

Miércoles 05 de Abril de 2023, 16:15 Hrs.
Sala de Seminarios John Von Neumann del Centro de Modelamiento Matemático (Beauchef 851, Edificio Norte, Piso 7).