Introduction to convex and nosmooth analysis

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Calendario: in un periodo dal 7 gennaio al 7 aprile

Programma del corso:

- I) Basics on convex and nonsmooth analysis in finite dimensions (normal and tangent vectors, subgradients); minimization with nonsmooth constraints, necessary conditions; comparison of different concepts of normals and gradients, regular sets and functions.

- II) Necessary conditions in control theory and calculus of variations (Pontryagin maximum principle).

- III) Extensions to infinite dimensional Hilbert and Banach spaces.

- IV) Methods of nonsmooth analysis and geometric measure theory for some classes of sets.