



Seminario de Estudiantes de Postgrado en Ingeniería Matemática Sesión 1 – 2026

Miércoles 09 de septiembre, 12:30 horas, auditorio Hermann Alder Weller, CI²MA

Algorithms in Continuous Optimization: applications, recent results, and challenges

Relevant practical problems arising, for example, in image processing, data science, machine learning, and economics, are modeled and solved using optimization tools. Therefore, developing efficient algorithms that guarantee theoretical convergence is essential to address these problems effectively.

This talk will present both classical results and recent advances in splitting methods designed to solve monotone inclusions and, by extension, continuous optimization problems. In particular, fundamental methods such as gradient descent and the proximal point algorithm will be reviewed, alongside modern techniques including nonlinear forward-backward algorithms, acceleration schemes, and extensions to the non-monotone case.

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