

WORKING GROUPS PDE

DATE: FRIDAY, JULY 29, STARTING FROM 9:00 ¹

A presentation of the alternating optimization method

CHI-TING WU

Internship, BCAM

We present the general ideas of the steepest gradient method for solving an optimization problem. Then, we discuss a new method called "the alternating optimization method" whose convergence has been proved by Professeur Paul Tseng in the article "Convergence of Block Coordinate Descent Method for Nondifferentiable Minimization".

Nonstationary inverse problems: an introduction to Kalman filtering

JAVIER ESCARTIN

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In my last talk we saw how to deal with inverse problems, treating the unknown information we are looking for as a random variable. Now we will see how to deal with the problem if the unknown is not a random variable, but a stochastic process that varies through time, introducing the Kalman filtering and seing an example in which we will apply it trying to determine the evolution in time of a wave for which we don't know exactly the wave velocity.

¹Each presentation will last 25 minutes with some breaks in between for further questions and discussions