Massachusetts Institute of Technology
Department of Mathematics

LUNCH SEMINAR FOR GRADUATE STUDENTS

MONDAY, FEBRUARY 27, 2012
12:00 - 1:00 PM

ROOM 2-131

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"Recovery of high dimensional sparse signals"

Abstract

We consider sparse signal recovery problem in the presence of noise. Methods based on constrained minimization and penalized optimization will be introduced. In particular, We discuss the L1 penalized least absolute deviation method. Different from most of other methods, the L1 penalized LAD method does not need any knowledge of standard deviation of the noises or any moment assumptions of the noises. Our analysis shows that the method achieves near oracle performance. The result is true for a wide range of noise distributions, even for the Cauchy distribution.

Followed by pizza in room 2-290