SEMINARIO DE MATEMÁTICA APLICADA / IMI-DSC

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Regularized Minimax Probability Machine

Abstract

In this work, we propose novel second-order cone programming formulations for binary classification, by extending the Minimax Probability Machine (MPM) approach. Inspired by Support Vector Machines, a regularization term is included in the MPM and Minimum Error Minimax Probability Machine (MEMPM) methods. This inclusion reduces the risk of obtaining ill-posed estimators, stabilizing the problem, and, therefore, improving the generalization performance. Our approaches are first derived as linear methods, and subsequently extended as kernel-based strategies for nonlinear classification. Experiments on well-known binary classification datasets demonstrate the virtues of the regularized formulations in terms of predictive performance.

Fecha: Lunes 8 de julio de 2019
Hora: 11:00 horas
Lugar: Aula 209 (Seminario Alberto Dou)
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