統計科學研究所
INSTITUTE OF STATISTICAL SCIENCE

學　術　演　講

講　題：Estimation of l_0 Norm Penalized Models: A Statistical Treatment

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時　間：2024年6月3日(星期一)，10:30-12:00

地　點：統計所B1演講廳

Abstract

Fitting penalized models for the purpose of merging the estimation and model selection problem has become common place in statistical practice. Of the various regularization strategies that can be leveraged to this end, the use of the l0 norm to penalize parameter estimation poses the most daunting model fitting task. In fact, this particular strategy requires an end user to solve a non-convex NP-hard optimization problem irregardless of the underlying data model. For this reason, the use of the l0 norm as a regularization strategy has been woefully under utilized. To obviate this difficulty, herein we propose a strategy to solve such problems that is generally accessible by the statistical community. Our approach can be adopted to solve l0 norm penalized problems across a very broad class of models, can be implemented using existing software, and is computationally efficient. We demonstrate the performance of our method through in depth numerical experiments and through using it to analyze several prototypical data sets.

※ 茶　會：10：10開始。

※ 實體與線上視訊同步進行。