El Departamento Académico de Estadística del ITAM

anuncia la siguiente sesión (No. 255) de

EL SEMINARIO ALEATORIO QUE EN ESTA OCASIÓN SERÁ CONJUNTO CON EL SEMINARIO DE ACTUARÍA

que, con el título

"Big Data Big Bias "

Impartirá

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Brock University

Abstract:

In high-dimensional data settings where number of variables is greater than observations, many penalized regularization approaches were studied for simultaneous variable selection and estimation. However, with the existence of covariates with weak effect, many existing variable selection methods may not distinguish covariates with weak signals and no signal. In this case, the prediction based on a selected submodel may not be highly efficient. In this talk, we propose a high-dimensional shrinkage estimation strategy to improve the prediction performance of a submodel. Such a high-dimensional shrinkage estimator (HDSE) is constructed by shrinking a weighted ridge estimator in the direction of a predefined candidate submodel. Under an asymptotic distributional quadratic risk criterion, its prediction performance is explored analytically. We show that the proposed HDSE performs better than the weighted ridge estimator. More importantly, it improves the prediction performance of any candidate submodel generated from most existing variable selection methods significantly. The relative performance of the proposed HDSE strategy is demonstrated by both simulation studies and the real data analysis.

Fecha: Viernes 21 de febrero 2014
Seminario: 13:00 h.
Salón: B - 2, Plantel Río Hondo

Lista de seminarios próximos. Visite:

http://estadistica.itam.mx/es/51/contenido/seminario-aleatorio-de-estadistica

El Seminario Aleatorio está destinado tanto a profesores como a estudiantes, por lo que el Departamento de Estadística agradece a los profesores que colaboren invitando a sus alumnos a estas sesiones.

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