Departamento Académico de Estadística
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Seminario Aleatorio

Sesión 295

Why Auto-PARM is better than Dynamic Programming Algorithms for Segmenting Time Series?

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Resumen

The Breakpoint problem has been for so long an active area of research in Statistics and many other areas. Auto-PARM is a "random" search procedure based on genetic algorithms, proposed by Davis, Lee and Rodríguez Yam (2006) to solve the multiple change problem for Autoregressive pieces. A key component in this algorithm is the fitness function, which is based on the MDL principle of Rissanen for model selection. Being a random search algorithm, it only finds nearly optimum solutions of this fitness function. Another procedure in the literature to segment time series, based on Dynammic Programming algorithm proposed by Jackson, et al (2005) finds the exact solution to the fitness function, which must be "additive". In this talk, the performance of Auto-PARM is assessed using the exact results of the Dynamic Programming procedure based on AIC and BIC additive fitness functions.

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Aula B-3, Plantel Río Hondo

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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