

國立中正大學數學系  
暨應用數學碩士班、統計科學碩士班  
學 術 演 講

## Kernel Regression Utilizing External Information as Constraints

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### Abstract

In modern scientific research and practice, the widespread availability of large and varied data sources has shifted the analytical focus from single data sets to integrating multiple data sets. Effectively merging these diverse resources requires addressing critical data-quality challenges, including incomplete or partial covariates, summary-level information, and heterogeneity across different data sets. Overcoming these obstacles is vital for achieving reliable and comprehensive data integration.

In this talk, I will introduce a novel methodology that leverages external information as a constraint in kernel regression models. This framework significantly enhances predictive performance by incorporating partial covariate information, accommodating summary-level data, and managing heterogeneous data sets. This approach paves the way for more robust, accurate, and versatile data integration in a wide range of scientific and applied settings.

日 期:115 年 4 月 15 日(星期三) 16:10~17:00

地 點:本校數學館 527 教室 (嘉義縣民雄鄉大學路 168 號)

茶 會:15:30~16:00 數學館四樓 409 室舉行

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