

2023년 제 6회 통계세미나

고려대학교 통계연구소와 BK21 통계학교육연구팀, 그리고 DS+가 다음과 같이 공동으로 세미나를 개최하오니 많은 참여 바랍니다.

일시 : 2023년 4월 14일(금) 오전 11시

장소 : 고려대학교 정경관 206호

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Partial linear regression of compositional data

<Abstract>

In this talk, we'll talk about a partial linear model with compositional response, which has compositional and Euclidean variables as predictors. Based on the isometric log-ratio (ilr) transformation, we define a partial linear regression model in the context of Aitchison geometry. In terms of expectations and conditional expectations of the response and covariates, a condition for the identification of linear parameters and a function parameter is given. An estimator based on the identification is presented. Using currently available R packages such as `np` and `compose` makes it simple to apply the suggested method. To make it simple to employ for inference, the suggested estimator's limiting distribution is given a normal distribution in Euclidean space. Also, some finite sample properties are presented via simulation studies. We also present election data as an illustrative example.

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