

A linear mixed model framework to study gene-environment interactions

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Abstract: Investigating gene-environment (G×E) interactions is an important step towards the complete understanding of complex human diseases. Regression-based method with linearity assumption is the commonly used approach in detecting G×E interactions. However, the assumption could be violated due to non-linear genetic effects. In this talk, we will perform an approach on testing the G×E interactions, evaluate the performance of simulation studies, and apply the approach to real data.