

Item Response and Structure Learning

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Item response theory models have been the backbone of statistical approaches to educational measurement. Recent developments on diagnostic classification models (DCMs) offer alternative and more flexible methods for handling response data with structured latent class models. Underlying the DCMs are individuals' attribute configurations and the relationships between items and attributes. This talk will discuss some new methods for simultaneous learning of subjects' attribute configurations and item-attribute relationships. An application to the study of social phobia using NESARC data will be presented. If time permits, additional work that integrates the latent space with network modeling of item response data will also be presented.