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Marginal Models: recent developments and applications to categorical time series analysis

Recently general defnitions of marginal interactions and marginal models have been introduced by Bergsma-Rudas (Annals of Statistics, 2002) and by Colombi-Forcina (Biometrika, 2001) that considerably improved the fexibility and interpretability of standard hierarchical log-linear models by allowing interactions to be conrasts of four types of Logits defned within different marginal distributions. This lecture reviews these recent contributions and shows their relevance in the context of categorical time series analysis.
More precisely it is shown that marginal parametrizations are particularly suitable for specifying Hidden Markov Models and State Space Models for multi-categorical data.

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Colombi's recent research interests are: Marginal Models for Contingency Tables, Categorical Time Series Analysis and Order Restricted Inference.