Title: Advanced Topics in MPT Modeling

Instructors: Constantin Meyer-Grant & Raphael Hartmann

Abstract:

MPT models are a versatile tool for analyzing categorical data, allowing for the decomposition of cognitive processes into distinct probabilistic components. The workshop "Advanced Topics in MPT Modeling" is intended to familiarize participants with more sophisticated concepts related to this model class.

On the first workshop day, participants will learn how to set up custom MPT models within a (hierarchical) Bayesian framework. This session will cover the theoretical underpinnings, practical implementation, and interpretation of (hierarchical) Bayesian MPT models, providing attendees with the skills to apply these techniques to their own substantive research questions.

The second workshop day will delve into advanced methodologies for incorporating response times into MPT models. Participants will explore state-of-the-art techniques that integrate response time data with MPTs, enhancing the models' ability to capture the dynamics of cognitive processes. This segment will include a discussion on the latest research developments and practical exercises to solidify understanding.

Throughout the workshop, participants will engage with hands-on examples, fostering practical skills and a theoretical understanding of the topics covered. This workshop is ideal for those with prior experience in MPT modeling who wish to expand their expertise in (hierarchical) Bayesian approaches and the integration of response time data.

<u>Assignment:</u> Active participation

Credits: 2 workshop days