Cognitive psychometrics and cognitive latent variable models

Joachim Vandekerckhove
Assistant Professor
Department of Cognitive Sciences
UC Irvine

Thursday, April 23, 2015
4 – 5 p.m., 6011 Bren Hall
(Bldg #314 on campus map)

We introduce cognitive latent variable models, a broad category of formal models that can be used to aggregate information regarding cognitive parameters across participants and tasks. Latent structures are borrowed from a vast literature in the field of psychometrics, and robust cognitive process models can be drawn from the cognitive science literature. The new modeling approach is an extension of hierarchical modeling, allows model fitting with smaller numbers of trials per task if there are multiple participants, and is ideally suited for uncovering correlations between latent task abilities as they are expressed in experimental paradigms. Example applications deal with the structure of cognitive abilities underlying a semantic task, and executive functioning.

For directions please refer to http://www.ics.uci.edu/about/visit/
information please contact Lisa Stieler at lstieler@uci.edu