

**Arbeitsgruppe:** Cognitive Psychology, Department of Psychology  
**Ansprechpartner:** Prof. Dr. Hans Colonius

**Forschungsschwerpunkte und Interessen:**

- Mathematical Psychology
- Modeling multisensory integration, e.g. visual-auditory perception
- Measuring subjective dissimilarity
- Modeling choice behavior

**Methoden:**

- Quantitative/mathematical models
- reaction time measurement
- eye movement registration

**Ausgewählte Publikationen der letzten fünf Jahre**

- [1] Colonius, H. (2015) Behavioral measures of multisensory integration: bounds on bimodal detection probability. *Brain Topography*, 28 (1), 1-4.
- [2] Medina JM, Wong W, Díaz JA, Colonius H. (2015) Advances in modern mental chronometry. *Front Hum Neurosci*. 2015 May 6;9:256. doi: 10.3389/fnhum.2015.00256.
- [3] Diederich, A., Colonius, H. (2015) The time window of multisensory integration: relating reaction times and judgments of temporal order. *Psychological Review*, 122(2): 232-41.
- [4] Kandil, F. I., A. Diederich, and H. Colonius (2014). Parameter recovery for the time-window-of-integration (TWIN) model of multisensory integration in focused attention. *Journal of Vision*, 14(11), 1–20.
- [5] Steenken, R., L. Weber, H. Colonius, and A. Diederich (2014). Designing driver assistance systems with crossmodal signals: multisensory integration rules for saccadic reaction times apply. *PloS One* 9(5), e92666.

**Kooperationen/Projekte:**

- PI in SFB/TRR31 (Teilprojekt B4)
- PI in Hearing4all Exc.Cluster
- PI in CSE (Interdisciplinary Research Center on Critical Systems Engineering for Socio-Technical Systems)