

Talk Announcement for the Psychological Research Colloquium, Winter Semester 2026/27

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## **Acoustic-Prosodic Entrainment in Collaborative Learning: Detecting Homogeneity of Problem Perceptions Using Multimodal Data**

**Thursday, 03. December 2026, 17:30 – 19:00, Room 2108/D**

**Abstract:** Collaborative learning depends on socially shared regulation, yet real-time, unobtrusive detection of regulatory alignment remains challenging. We investigate whether acoustic-prosodic entrainment—measured as synchrony and proximity across prosodic features—can signal shared perception of regulation problems. In a Zoom-based problem-based learning task, 44 groups of pre-service teachers working in groups of 2 to 5 students collaboratively solved problems and reported individual perceptions afterward. Turn-by-turn analysis of audio data captured prosodic entrainment across speaker transitions, while transcripts were coded for problem type. Expected results will show whether higher prosodic entrainment predicts greater homogeneity in perceived problems. These findings will inform us whether acoustic-prosodic entrainment reflects shared cognitive states during collaborative regulation, potentially offering a promising, real-time signal for adaptive scaffolding. We discuss implications for designing responsive CSCL systems that use unobtrusive multimodal cues to support emergent coordination.

**All colleagues, doctoral researchers and students are cordially invited.**

**Optionally, digital participation is also possible at:**

<https://uni-augsburg.zoom.us/j/98037502123?pwd=N0NPYmVlNmhKRDIcSXISbGZiclhZz09>