

Thursday, 01 March 2012, 14:00 hrs

Stephanstrasse 1 a

Wilhelm Wundt Room, 4th Floor

## Guest Lecture

Dr Marcel Bastiaansen

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### Rapid neuronal dynamics in the brain's language network

Oscillatory dynamics in scalp EEG and MEG are thought to (at least partially) reflect the underlying dynamics of the coupling and uncoupling of functional neuronal networks that carry cognitive processes. In the presentation I will selectively review literature that addresses the oscillatory dynamics that can be observed during various aspects of language comprehension.

For instance, there is evidence that low-frequency oscillatory dynamics (theta-band power changes) are related to lexical retrieval, whereas high-frequency dynamics (beta / gamma power and coherence changes) are related to sentence-level integration (unification) of the individual lexical items. I will then briefly report on recent efforts to identify the oscillatory dynamics involved in turn-taking in conversations. Finally, to illustrate how the study of oscillatory dynamics can support and complement ERP research, I will report on an experiment that addresses the context-dependency of semantic retrieval, using Dutch idiomatic expressions as a tool.