LANGUAGE CYCLES
MAX PLANCK RESEARCH GROUP

Wednesday, 15 November 2023, 14:00 (CET)

Zoom

Language Circle

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Oscillators as cortical pacemaker: open questions

Oscillation-based models of speech perception postulate a cortical computational principle by which decoding is performed within a window structure derived by a segmentation process. Segmentation of syllable-size chunks is realized by a θ oscillator locked to the input syllabic rate, and segmentation of accentual chunks is realized by a δ oscillator locked to the acoustic prosodic structure. In the first part of the talk I will propose that from a functional viewpoint, the scaffold for the speech decoding process is an acoustic determinant. Whether oscillation driven or not, the decoding process is paced by a hierarchical cortical clock, realized by oscillators locked to the input rhythm in multiple Newtonian-time scales, keeping the decoding process in sync with the linguistic information flow. Only if such a lockstep is secured can reliable decoding proceed. In the second part of the talk I will raise a few corollaries to this view and discuss the emerging implications.

Join online:

https://zoom.us/j/95065830000
Meeting-ID: 950 6583 0000

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