PADOVA neuroscience CENTER

28 NOVEMBER 2024 3:00 pm
SALA SEMINARI VIMM
(Via Giuseppe Orus 2, Padova)

PNC SEMINARS

A talk by Francesco Vespignani
(University of Padua)

RHYTHMS, ENTRAINMENT, PREDICTION, AND REPETITION: WHAT IS SPECIAL ABOUT LANGUAGE AND THE BRAIN?

Cognitive science of language has been dominated for decades by innatism based on generative grammar theory. More recent years have seen a renaissance of models based on (statistical) learning only, leading to positions which I dub neo-behavioralist. These positions are recently even more popular, partially boosted by recent developments of AI large language models. Within this debate, prediction and sensitivity to rhythmicity and regularities of language play a significant role in models of language processing, tightly linked to theories of system neurosciences. I will present some of my current research on prediction, repetition, and entrainment in language processing at the sentence level. I will also try to persuade the audience that it is time to abandon strict ideological position on nature/nurture dualism.

Biography

Francesco Vespignani is an Associate Professor at the Dept. of Developmental Psychology and Socialisation at the University of Padua. He was awarded both his Master's Degree in Physics and his Ph.D. in Cognitive Sciences, under the supervision of Prof. Roberto Dell'Acqua, at the University of Padua.

His research focuses on language processing and in particular on the processes underlying phrase processing and comprehension. For his research, Francesco uses electroencephalography techniques, behavioral methods, and other data derived from the EEG. Recently, he has turned to time-frequency analysis and to the study of entrainment and temporal response function.

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