# **Special Issue**

## What Limits Working Memory Performance?

### Message from the Guest Editors

Common wisdom tells us that working memory is severely limited in capacity-for example, the "magical" number seven for digit span; perhaps because of hard biophysical constraints-as suggested by the typical few seconds of retention time for verbal material. Experimental evidence is however complex, and is in complex relation to information theory. George Miller noted that while humans can typically convey only about log2(7) bits in unidimensional judgements, our shortterm memory span can be much longer, if information is organized in chunks. Venerable mnemonic techniques, like the method of loci, can help us to train ourselves to recode and reach well beyond our naive short-term information capacity. So, is a general informationtheoretic account of working memory possible? How constrained would it be by cortical circuitry? Any theoretical and theory-framed experimental contribution to these questions is welcome to the SI, including evidence obtained in animal studies or with the simulation of plausible memory networks.

### **Guest Editors**

#### Prof. Dr. Alessandro Treves

SISSA- Cognitive Neuroscience, Via Bonomea 265, I-34136 Trieste, Italy

#### Dr. Yair Lakretz

Cognitive Neuroimaging Unit NeuroSpin center 91191, Gif-sur-Yvette, France

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## Message from the Editor-in-Chief

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### Editor-in-Chief

Prof. Dr. Kevin H. Knuth

Department of Physics, University at Albany, 1400 Washington Avenue, Albany, NY 12222, USA

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