RUHR-UNIVERSITÄT BOCHUM

RUB

IGSN - SYMPOSIUM

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Deeper underground: opportunities and challenges of noninvasive or minimally invasive deep brain stimulation techniques

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Transcranial Ultrasonic Stimulation (TUS) for non-invasive deep brain neuromodulation in humans

Low-intensity transcranial ultrasonic stimulation (TUS) for neuromodulation is a novel non-invasive brain stimulation technique allowing the targeting of both cortical and deep brain regions with unprecedented spatial precision. I will provide a brief introduction into ultrasound physics and sonication parameters, introduce the equipment required to start a new TUS lab, discuss transducer selection, experimental design and procedures, confounds and control conditions, and elaborate on the essential steps of application planning, as well as the combination of TUS with neuroimaging, electrophysiology, and other brain stimulation techniques.

Host:

VUK MARKOVIC

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