TransMed/FTN Teaching Program 2026

name of the event		Brain stimulation in mental health: from network neuroscience to precision psychiatry				
Leading lecturer (PI)	academic title name	Prof. Dr. Til Ole Bergmann (Neuroimaging Center) and PD Dr. Florian Müller-Dahlhaus (Department of Psychiatry and Psychotherapy)				
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additional lecturer(s) from the lab (academic title, name)		Dr. Suhas Vijayakumar, Max Lueckel, Sandra Schwarz, Bartol Bartulovic, Lutz Tebbe				
name of Institution, Clinics		Neuroimaging Center & Department of Psychiatry and Psychotherapy, UM Mainz				
type of event (lecture, seminar, practical workshop, online-seminar, etc)		Workshop				
location of event		Neuroimaging Center (NIC), University Medical Center Mainz, Bldg. 308c, Seminar Room 3. floo				
teaching language		English				
start and end of event	date	from	01.03.27	to	02.03.27	
dates	Monday	from	09:00	to	17:00	
	Tuesday	from	09:00	to	17:00	
	Wednesday	from		to		
	Thursday	from		to		
	Friday	from		to		
maximum number of participants		20				
minimum number of participants		5				
maximum missed appointments		1				
special criteria for obtaining credit points		None				
content/aim of event, other remarks		Non-invasive neurostimulation has emerged as a powerful tool at the interface of systems neuroscience and clinical psychiatry. This workshop examines two neurostimulation technologies — transcranial magnetic stimulation (TMS) and transcranial ultrasound stimulation (TUS) — across research and clinical settings. While TMS modulates cortical excitability via focused electromagnetic pulses at the surface, TUS allows to engage deep subcortical structures with millimeter precision by acoustic waves, inaccessible to conventional surface stimulation. Both modalities allow to selectively target, engage and modulate large-scale brain networks relevant for specific affective and cognitive functions. Lectures will include the physical and physiological basis of TMS and TUS, stimulation paradigms, protocols as well as strategies for proof-of-target exposure and engagement. Further, the current evidence and perspectives of these technologies for network-specific neuromodulation and treatment of patients with depression, anxiety, PTSD and psychotic disorders will be presented and discussed. Finally, participants will acquire hands-on experience in TMS application and interactively follow demonstrations of TUS-based neurostimulation. In summary, this workshop aims to discuss and foster the translational pipeline and paradigm shift from empirically-driven clinical psychiatry to network neuroscience-informed personalized precision psychiatry.					
location and date		Mainz, 2026-10-27				
signature (digital):						