

NEUROTECHEU WORKSHOP ON “THE FUTURE OF INTRACRANIAL RECORDINGS IN HUMANS”

May 16th and 17th, 2024

The Old Church of the “Collegium Leoninum Hotel” in Bonn

Thursday May 16

Time	Event
09:00 – 09:15	Introduction: Florian Mormann: “Introduction and goals of the workshop”
09:15 – 10:30	Keynote lecture (chair: Florian Mormann): Lucia Melloni: “From continuous streams to segmented units: Understanding how events structure perception and memory”
10:30 – 11:00	Coffee break
11:00 – 11:45 11:45 – 12:30	Cognitive neuroscience (chair: Lukas Kunz): Randolph Helfrich: “iEEG and cognition” Taufik Valiante: “From neurons to brain: Novel neurotechnologies”
12:30 – 14:00	Lunch break at the Hotel’s restaurant, Leo’s Bistro
14:00 – 14:45 14:45 – 15:30	Biocompatibility (chair: Maria Asplund): Cristin Welle: “The living interface: long-term electrode implantation in the brain” Viviana Rincon Montes: “Validation of 2D and 3D neurotechnologies for in vitro and in vivo clinically relevant neural applications: from epileptic models to enhanced microneurography and visual prosthetics”



Thursday May 16

Time	Event
15:30 – 16:00	Coffee break
16:00 – 16:45	Computational modeling (chair: Timo van Kerkoerle) Maria-Carla Piastra / Robert Oostenveld: “Intracranial measurements and simulations in epilepsy: rich data to enrich methods”
16:45 – 17:30 17:30 – 18:15	High-density electrodes (chair: Patrick Ruther) John P. Seymour: “Does HD-SEEG have a future in humans?” Istvan Ulbert: “Laminar recordings in humans”
11:00 – 11:45 11:45 – 12:30	Cognitive neuroscience (chair: Lukas Kunz): Randolph Helfrich: “iEEG and cognition” Taufik Valiante: “From neurons to brain: Novel neurotechnologies”
18:30 – 20:00	Dinner at the Hotel’s restaurant, Leo’s Bistro
20:00–21:00	Evening program (at the library): John Gale (DIXI Medical) : “The trials and tribulations of investigating learning and decision making in humans: From single unit to field potentials”
21:00–22:00	Drinks

Friday May 17

Time	Event
09:00 – 09:45 09:45 – 10:30	Neuro-electronics (chair: Maria Asplund): Daniel de Dorigo: “Miniaturized CMOS technology” Vasiliki Giagka: “Active neuroelectronic implants”
10:30-11:00	Coffee break
11:00 – 11:45 11:45 – 12:30	Cognitive neuroscience (chair: Lukas Kunz) Stefanie Liebe: “Working memory and phase coding” Doris Dijksterhuis: “Pronouns reactivate concept cells in the human hippocampus”
11:00 – 11:45 11:45 – 12:30	Cognitive neuroscience (chair: Lukas Kunz): Randolph Helfrich: “iEEG and cognition” Taufik Valiante: “From neurons to brain: Novel neurotechnologies”
12:30 – 14:00	Lunch break at the Hotel’s restaurant, Leo’s Bistro
14:00 – 14:45 14:45 – 15:30	Epilepsy (chair: Timo van Kerkoerle) Rodrigo Rocamora: “Radiofrequency thermocoagulation (RD-TC) with SEEG as a minimally invasive therapy in epilepsy” Ulrika Sandvik: “Intracranial implantation and recording from a neurosurgical viewpoint”
15:30-16:00	Coffee break
16:00 – 16:45 16:45 – 17:30	Neurosurgery (chair: Florian Mormann) Valeri Borger: “Role of the piriform cortex in epilepsy surgery and invasive seizure monitoring” Matthias Schneider: “Neuropixels recordings in humans”
17:00-18:00	Final session (chair: Timo van Kerkoerle) Discussion and conclusions