

Large Language Models in Brain Research: From Theory to Practice

Join us for a 1.5-day workshop exploring how LLMs and vision-language models relate to brain mechanisms, model linguistic data, and align with neural activity.

27 OCT - 2025

- 13:00-13:45 **Mariya Toneva** Improving LLMs as model organisms of human language processing
- 13:45-14:30 **Adrien Doerig** High-Level Visual Representations in the Human Brain Are Aligned With Large Language Models
- 14:30-15:00 Coffee break
- 15:00-17:30 **Marianne de Heer Kloots - Tutorial**

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- 10:00-10:45 **Micha Heilbron** Abstract syntax and fleeting memory in language models and the human mind
- 10:45-11:30 **Gemma Roig** Aligning Humans and Language Models: how to investigate emergent properties of geometrical spaces
- 11:30-12:15 **Sandro Pezzelle** Circuits, representations, and the brain: Does language processing in LLMs and VLMs reflect human cognitive mechanisms?
- 12:15-13:30 Lunch break
- 13:30-14:15 **Benjamin Gagl** Can Large Language Models (LLMs) generate useful linguistic corpora? Case studies investigating the literacy skills of German children
- 14:15-15:30 Coffee break
- 15:30-16:15 **Johannes Mehrer** TopoLM: brain-like spatio-functional organization in a topographic language model
- 16:15-17:30 **Panel discussion**

