



# The 1<sup>st</sup> Conference of Magnetic Technologies and Clinical Applications in Neuroscience (MagCAN Conference)

**Call for Abstracts!**  
**Minneapolis, August 24 – August 25, 2023**

The 1<sup>st</sup> Conference of Magnetic Technologies and Clinical Applications in Neuroscience (**MagCAN Conference**) will be held on August 24 - August 25, 2023, at the University of Minnesota, Twin Cities. This year's conference will concentrate on the latest developments in magnetic and spintronic devices and systems, with a particular emphasis on their potential applications in neural stimulation and sensing, diagnosis and treatment of neurological disorders, and brain-inspired technologies. The goal is to leverage the knowledge gained from these advances in magnetic and spintronic research and their related principles to develop innovative technologies that mimic the workings of the brain.

Invited talks, contributed talks and posters will be presented in the conference. Poster sessions will also be held following the oral sessions and will feature posters from the invited speakers and accepted contributing posters. Further information about the conference can be found [here](#). A registration link will be posted on the conference website shortly.

Topics of Interest Include:

## **Neurostimulation based on Magnetic and Related Technologies**

- Deep Brain Stimulation (DBS), Micromagnetic and Transcranial Magnetic Stimulation (MMS & TMS), Transcranial Direct Current Stimulation (tDCS), Vagus Nerve Stimulation (VNS), Spinal Cord Stimulation (SCS), Neuromodulation for chronic pain management, Neuromodulation for movement disorders, Closed-Loop Neuromodulation.

## **Neuron Sensing based on Spintronics and Related Technologies**

- Brain-Computer Interfaces (BCIs), Implantable Neuroelectronic Devices, Electroencephalography (EEG), Magnetoencephalography (MEG), Neural Decoding, Neural Signal Processing, Neuron Networks.

## **Brain Inspired Technologies based on Magnetic and Spintronic Materials**

- Artificial Neural Networks (ANNs), Neuromorphic Computing, Cognitive Computing, Brain-Computer Interfaces (BCIs), Biomimetic Sensors.

**Nominations for invited speakers should be submitted to the conference coordinators at [neurospin@umn.edu](mailto:neurospin@umn.edu) by June 30<sup>th</sup>, 2023.** Please include a brief description to support your nomination and help the selection.

**For contributing talks or posters, please submit your abstract (maximum 200 words) by completing [this online form](#) by June 30<sup>th</sup>, 2023.**

### **Conference Chair**

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### **Conference Committee**

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### **Conference Coordinator**

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### **Conference Treasurer**

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[Abstract Submission Link](#)

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