

"Sensing the Brain"

IEEE Brain SENSORS Workshop

November 2nd, 2017

Glasgow, Scotland

(immediately following the IEEE SENSORS 2017 Conference)



Thursday – November 2, 2017

We invite you to participate
in this collaborative workshop



The IEEE Brain Initiative will be hosting a one-day collaborative workshop on November 2nd, 2017, following the IEEE SENSORS 2017 meeting. The theme of the IEEE Brain SENSORS workshop will be on "Sensing the Brain", with the goal of bringing together academic and industry researchers, as well as government stakeholders, to discuss novel invasive sensors and sensing technologies. Several technology speakers will provide short presentations to set the stage for panel and breakout discussions where participants will identify challenges and explore solutions. The outcomes of this one-day workshop will be included in a future IEEE publication.

AGENDA:

Welcoming Remarks

Jacob Robinson, Rice University, IEEE Brain Sensors Workshop Chair
Paul Sajda, Columbia University, IEEE Brain Initiative Chair

AM Presentation

Jacob Robinson, Rice University
Flat Implantable Microscopes for Imaging Brain Activity

Caleb Kemere, Rice University
Realizing the Promise of Flexible Electrodes via Microfluidic Insertion

Adam Marblestone, Kernel
Physical Principles for Scalable Neural Recording

George Malliaras, University of Cambridge
Organic Electronic Devices for Sensing the Brain

Thomas Stieglitz, University of Freiburg
Stability and Functionality of Flexible Electrodes Arrays

Chong Xie, University of Texas, Austin
A Nanoelectronic Neural Interface: Towards Wiring up Every Neuron

Kenneth Shepard, Columbia University
CMOS Neural Probes

John Kitching, National Institute of Standards and Technology
Atomic Magnetometers: A Panacea for Biomagnetic Measurements?

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PM Discussion

Panel 1 - Electrical Neural Interfaces

Panel 2 - Optical Neural Interfaces and Remote Sensing

Breakout - Challenge Questions

Breakout Group Presentations / Discussions