

Title:

Cloud-based BCIs: challenges and opportunities of home-use systems for big data collection

Organisers:

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Abstract (150 words):

Bringing brain-computer interfaces from the lab environment into the homes of patients and consumers requires three components: 1) Cloud-based realtime signal processing and machine learning that generalises across large datasets, 2) Low-cost, wireless EEG hardware with sufficient signal quality for scientific and clinical purposes, 3) User-friendly, cross-platform software applications to make the system directly accessible to endusers. Tackling this challenge may be the key to enabling robust communication and control for patients, and breaking the limitations of current research in terms of sample size and longitudinal data. With this workshop we aim to bring experts from both inside and outside the BCI community together to inspire future work that will allow us to overcome existing boundaries, both in research and in clinical practice.

Format:

Talks with Q&A, Tech Demos

Number of expected participants:

30

Workshop Timetable:

From 9am to 5pm

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| 9:00 - 9:15 | Introduction |
| 9:15 - 10:00 | Keynote: QUSP (Tim Mullen, confirmed) |
| 10:00 - 10:15 | <i>Coffee Break</i> |
| 10:15 - 11:00 | Keynote: Brainwavebank (Brian Murphy, confirmed) |
| 11:00 - 12:00 | Attendee Talks (2 x 20min + 10min discussion) |
| 12:00 - 1:30 | <i>Lunch</i> |
| 1:30 - 2:30 | Attendee Talks (2 x 20min + 10min discussion) |
| 2:30 - 2:45 | <i>Coffee Break</i> |
| 2:45 - 3:30 | Keynote: Serious Games OR Attendee Talks (2 x 30min) |
| 3:30 - 4:00 | Panel Discussion |
| 4:00 - 5:00 | Demo Time (QUSP, Brainwavebank, Serious Games) with Coffee |