

# Workshop on “Maths in the brain”

Time	Item	Presenter
10:30am – 10:35am	Introduction	Gary Egan & Adeel Razi
Session 1: 10:35am – 12:15pm. Chair: TBC		
10:35am – 11:00am	Techniques for analysis of folding in the cerebral cortex	<b>Rosa Shishegar</b>
11:00am – 11:25am	TBC	<b>Nao Tsuchiya</b>
11:25am – 11:50am	Cerebral physiology in the elderly: Characterising metabolism and function	<b>Phillip Ward</b>
11:50am – 12:15pm	A biophysical model for TMS-evoked cortical potentials	<b>Nigel Rogasch</b>
Lunch: 12:15pm – 1:00pm		
Session 2: 1:00pm -2:40pm, Chair: TBC		
1:00pm – 1:25pm	Measuring integrated information in the fly brain	<b>Angus Leung</b>
1:25pm – 1:50pm	Brain Networks: Maps, models, mechanisms	<b>Alex Fornito</b>
1:50pm – 2:15pm	Deep Learning for MRI	<b>Kamlesh Pawar</b>
2:15pm – 2:40pm	The utility of partial differential equations in the brain	<b>Kevin Aquino</b>
Tea: 2:40pm – 3:00pm		
Session 3:00pm – 4:40pm, Chair: TBC		
3:00pm – 3:25pm	Unsupervised analysis of sleep data using <i>hctsa</i> and <i>k</i> -means clustering	<b>Jasmine Walter &amp; Zhao Koh</b>
3:25pm – 3:50pm	Causal models of the brain	<b>Adeel Razi</b>
3:50pm – 4:15pm	The emergence of functional Positron Emission Tomography (fPET)	<b>Shenpeng Li</b>
4:15pm – 4:40pm	Dynamical systems modelling of sleep-regulatory circuits	<b>Andrew Phillips</b>