Monday 7th June

10am   Coffee and registration

11am   Synaptic plasticity I

Synaptic learning rules: a drunk man's walk to remember
Mark van Rossum

*Spike-timing and firing-rate dependent plasticity as
calcium-induced transitions in a bistable synaptic model*
Nicolas Brunel

12.30pm Lunch

2pm Neuronal properties I

*Neuronal spike-train responses in the presence of threshold noise:
First passage times, stochastic mode-locking, and coding*
Stephen Coombes

*Neuron spike rate responses: what are they,
what are they useful for and what do they depend on?*
Vincent Hakim

3.30pm Coffee break

4pm Neuronal properties II

Stochastic neural activity
Benjamin Lindner

4.45pm Poster session

6.30pm Dinner at Maths

Tuesday 8th June

9.30am Dendrites I

Role of dendrites in noise-induced synchronization
Alla Borisyuk

Toward a minimal model of a large spiking cell
Steven Cox

11am Coffee break

11.30am Dendrites II

The pyramidal cell as a multi-laminar computational unit
Bruce Graham

12.15pm Lunch

2pm Synaptic plasticity II

A model of synaptic plasticity spanning scales from dendrites to networks
Wulfram Gerstner

Spatio-temporal credit assignment in population learning
Walter Senn

3.30pm Coffee break

4pm Neuronal properties III

Interneurons in hippocampus: Modeling their distinct natures
Frances Skinner

6.30pm Conference dinner at Coombe Abbey

Wednesday 9th June

9.30am Networks I

Coding sensory signals in the whisker thalamus
Rasmus Petersen

How do neurons work together? Lessons from auditory cortex
Kenneth Harris

11am Coffee break

11.30am Networks II

Cortical information processing with population spikes
Misha Tsodyks

12.15pm Lunch

2pm Networks III

Effective activity equations for spiking neural networks
Carson Chow

Correlation shaping in the nervous system
Brent Doiron

3.30pm Coffee break

4pm Networks IV

The how, what, and why of the grid cell code for animal location
Ila Fiete

Network mechanisms of visuo-spatial working memory
David Hansel

5.30pm Poster session

6.30pm Dinner in Warwick Mathematics Institute

Thursday 10th June

9.30am Dendrites III

Energy-efficient propagation of action potentials
Arnd Roth

Cable theory of protein receptor trafficking in a dendritic tree
Paul Bressloff

11am Coffee break

11.30am Networks V

Hippocampal place cell assemblies generate
oscillating population activity at theta frequency
Caroline Geisler

What can we learn from multielectrode recordings of
extracellular potentials in the brain?
Gaute Einevoll

1pm Conference closes followed by
lunch at Warwick Mathematics Institute