

Neural Information Processing 2018/2019

- Structure -

Lecturers:

Conor Houghton (7)

Rui Ponte Costa (8)

Cian O'Donnell (3-5)

Probabilities and the brain

(lectures 1-7)

1

- › Introduction
- › Information theory
- › Statistical Learning
- › Probabilistic Brain

Neural circuits and learning

(lectures 8-15)

2

- › Sensory: Visual system
- › Convolution neural networks
- › Sensory: Auditory cortex
- › Recurrent neural networks
- › Supervised, unsupervised and reinforcement learning

Neural data science

(lectures 16-18/20)

3

- › Static statistical models
- › Dynamic statistical models

— — — — — → Useful for
—————→ Leads to