**Workshop: p-values, null-hypothesis significance testing, and practical stats**

Speaker: Maurits Evers ([maurits.evers@anu.edu.au](mailto:maurits.evers@anu.edu.au))

Format: 1 – 2 x 1hr

Date options: *Wednesday 10am, Wednesday 2pm, Thursday 1pm, Friday 2pm*

*Week 12-16 June*

*Week 19-23 June*

*Week 26-30 June*

**Tentative outline**

Version: 1.0 (01 June 2017)

* p-values: What they are, and what they are not

**Concepts**

* Guidelines from the American Statistical Society on p-values
* The current null-hypothesis significance testing (NHST) paradigm
* Common (mis)interpretations in NHST
* Absence of evidence is not evidence of absence – Or is it?
* False-positives and false-negatives
* Multiple testing correction and why it’s important
* What test to use?
* A brief overview of common statistical tests (parametric vs. non-parametric tests etc.)
* How to visualise and interpret results of common statistical tests

**Practical stats**

* Linear regression and linear models
* Correlation
* Optional topics