Practicalities for reproducible neuro-imaging 2.0

Organizers:
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Lately, the scientific world has been inundated with failures to replicate and neuroimaging is likely to be affected by the same problems. This crush of false positive results is worrying: increasingly evidence suggests that false positives are proliferating due to unchecked researcher biases, which favour analysing data until a publishable positive result is obtained. No researcher wants to make spurious discoveries, but researchers do not know how to change their practices to prevent them. The goal of this course is to present practical solutions that have been developed, allowing any researchers (not just programmers) to conduct power analyses, analyse data and publish results in a reproducible manner.

Course Schedule:

13:00-13:30
The reproducibility crisis
Cyril Pernet, Dr, The university of Edinburgh, Edinburgh, United Kingdom

13:30-14:00
Statistical power in neuroimaging
Jeanette Mumford, University of Wisconsin – Madison, Madison, WI, United States

14:00-14:30
The ins and outs of study pre-registration
Pia Rotshtein, Dr, University of Birmingham, Birmingham, United Kingdom

14:30-14:50
Break

14:50-15:20
Making analyses reproducible with limited programming skills
Pierre Bellec, CRIUGM/DIRO University of Montreal, Outremont, Québec, Canada

15:20-15:50
How to organize and share data: the Brain Imaging Data Structure
Cameron Craddock, PhD, Child Mind Institute, New York, NY, United States

15:50-16:20

Modern tools for sharing and synthesizing neuroimaging results

Krzysztof Gorgolewski, Dr, Stanford University, Stanford, CA, United States

16:20-16:30

Questions and Answer