



P A D O V A
neuroscience
C E N T E R

6 SEPTEMBER 2024 3:00 pm

SALA SEMINARI VIMM

(Via Giuseppe Orus 2, Padova)

PNC SEMINARS

A talk by Russell Poldrack (Stanford University)

AN OPEN ECOSYSTEM FOR COGNITIVE NEUROSCIENCE

It is now widely accepted that openness and transparency are keys to improving the reproducibility of scientific research, but many challenges remain to adoption of these practices. I will discuss the growth of an ecosystem for open science within the field of cognitive neuroscience, focusing on platforms for open data sharing and open source tools for reproducible data analysis. I will also discuss the role of the Brain Imaging Data Structure (BIDS), a community standard for data organization, in enabling this open science ecosystem, and will outline the scientific impacts of these resources.

Biography

Russell Poldrack is a psychologist and neuroscientist. After attending Baylor University, Texas, and completing his PhD in experimental psychology at the University of Illinois in Urbana-Champaign, he spent four years as a postdoc at Stanford. He held faculty positions at Massachusetts General Hospital/Harvard Medical School, UCLA, and the University of Texas. He joined the Stanford faculty in 2014, where he serves as Professor of Psychology. He is also Associate Director at Stanford Data Science and Faculty Director at Center for Open and Reproducible Science.

His work focuses on the brain systems involved in nondeclarative memory and, in particular, in the relation between stimulus-specific learning and general skill in a motor skill learning task. Together with his group, Poldrack has studied the brain systems involved in the inhibition of motor responses. He also demonstrated that brain activity during decisions under risk exhibited the pattern of gain- and loss-responsiveness predicted by prospect theory. He is a part of the Science of Behavior Change (SOBC) network. His research uses brain imaging to understand the brain systems supporting decision making, executive control, and behavior change.

In 2009, Russell Poldrack was elected as Chairperson of the Organization for Human Brain Mapping. He is a founding Co-Editor-in-Chief of *Frontiers in Brain Imaging Methods*, and has served as a member of editorial boards for *Psychological Bulletin*, *Nature Scientific Data*, *Trends in Cognitive Sciences*, *Cerebral Cortex*, *Human Brain Mapping*, *GigaScience*, *SCAN (Social, Cognitive, and Affective Neuroscience)*, *Cognitive Science*, *Frontiers in Human Neuroscience*, and *Neuroimage*.