



IMPRS on Cognitive Neuroimaging
Module 2: Basic Courses
Basic Statistics for Brain and Cognitive Sciences: Introduction to Bayesian Statistics

11, 14 & 18 June 2024

Date	Time	Topic	Lecturer	Venue
11 June	10.30 – 12.00	Basic concepts	Professor Daniel Schad	MPI CBS, Charlotte-Bühler- Room C402
	13.00 – 14.30	Bayesian linear models 1		
	15.00 – 16.30	Bayesian linear models 2		
14 June	10.30 – 12.00	Exercise: Linear models	Professor Daniel Schad	MPI CBS, Charlotte-Bühler- Room C402
	13.00 – 14.30	Hierarchical models		
	15.00 – 16.30	Exercise: Hierarchical models		
18 June	10.30 – 12.00	Model comparison	Professor Daniel Schad	MPI CBS, Charlotte-Bühler- Room C402
	13.00 – 14.30	Exercise: Model comparison		
	15.00 – 16.00	Exercise: Own data		
	16.00 – 16.30	JASP		

Please note: Software

Please install R, R-Studio, and JASP on your computer and bring it along. Moreover, the following R-packages should be installed: rstan, brms, tidyverse, bcogsci, extraDistr, bridgesampling, bayesplot, MASS, designr. Some of these installations are not straightforward and may take some time – It is recommended to do this in time before the course starts. Additional packages may need to be installed during the workshop.

Recommended reading

Nicenboim, B., Schad, D.J. & Vasishth, S. (2023). An introduction to Bayesian data analysis for cognitive science. <https://vasishth.github.io/bayescogsci/book/>

Organiser

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Credit Points

Participants have the possibility to receive 2.00 ECTS CPs. Conditions: 80% attendance and in-course assignments/homework.

