

Theory and Practice of Bayesian Hypothesis Testing: A JASP Workshop



16th and 17th May, 2018

Delivered by Eric-Jan Wagenmakers, University of Amsterdam

Hosted by the DART Research Group at Kingston University London

Event description

The main purpose of this workshop is to familiarize participants with key Bayesian concepts in hypothesis testing. Concrete examples illustrate how to compute, report, and interpret Bayesian hypothesis tests for popular statistical models such as correlation, regression, t-test, ANOVA, and contingency tables. To facilitate the learning process we use JASP, a program whose attractive graphical user interface allows us to focus on core Bayesian concepts and principles.

At the end of this workshop, participants should be able to carry out statistical analyses in JASP, interpret the output, and report the results.

This workshop is relevant to psychologists, economists, biologists, and generally any student or researcher who wishes to draw conclusions from empirical data. No background in Bayesian statistics is required.

Participants should bring a laptop with the latest version of JASP installed (<https://jasp-stats.org/>)

Workshop Programme

DAY 1

09:30 – 10:00 Registration

10:00 – 13:00 An explanation of Bayesian basics, illustrated with a simple, hands-on example. Concepts to be clarified include prior distribution, posterior distribution, and Bayes factors.

13:00 – 14:00 Lunch (provided)

14:00 – 17:00 An introduction to JASP. In-class exercises in Bayesian hypothesis testing for correlations and the t-test.

DAY 2

09:30 – 13:00 A further explanation of Bayesian basics: MCMC, one-sided tests, and problems with classical statistics (p-values and confidence intervals).

13:00 – 14:00 Lunch (provided)

14:00 – 17:00 In-class exercises in Bayesian hypothesis testing for contingency tables and ANOVA designs.

Booking a place

The cost of the workshop is £260. To book a place on the course, please email Emma Henderson e.henderson@kingston.ac.uk and include any dietary requirements. Lunch for both days is included in the cost of the workshop. A link for payment will follow.