



ΚΥΚΛΟΣ ΣΕΜΙΝΑΡΙΩΝ ΣΤΑΤΙΣΤΙΚΗΣ – ΑΠΡΙΛΙΟΣ 2016

Eric-Jan Wagenmakers

Department of Psychological Methods, University of Amsterdam

Bayesian Analyses with JASP: A Fresh Way to do Statistics

ΠΑΡΑΣΚΕΥΗ 1/4/2016

12:00 – 14:00

**ΑΙΘΟΥΣΑ 802, 8^{ος} ΟΡΟΦΟΣ,
ΚΤΙΡΙΟ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΩΝ
(ΕΥΕΛΠΙΔΩΝ & ΛΕΥΚΑΔΟΣ)**

ΠΕΡΙΛΗΨΗ

Bayesian hypothesis testing presents an attractive alternative to p value hypothesis testing. The most prominent advantages of Bayesian hypothesis testing include, first, the ability to quantify evidence, and, second, the ability to monitor and update this evidence as data come in, without the need to know the intention with which the data

were collected. Despite these practical advantages, Bayesian hypothesis tests are used relatively rarely. An important impediment to the widespread adoption of Bayesian tests is arguably the lack of user-friendly software for the run-of-the-mill statistical problems that confront psychologists for almost every experiment: the t-test, ANOVA, correlation, regression, and contingency tables. Here we introduce JASP (jasp-stats.org), an open-source, cross platform, user-friendly graphical software package that allows users to carry out Bayesian hypothesis tests for standard statistical problems. JASP is based in large part on the Bayesian analyses implemented in Morey and Rouder's powerful BayesFactor package for R. Armed with JASP, the practical advantages of Bayesian hypothesis testing are only a mouse click away.



AUEB STATISTICS SEMINAR SERIES – APRIL 2016

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**ROOM 802, 8th FLOOR,
POSTGRADUATE STUDIES BUILDING
(EVELPIDON & LEFKADOS)**

ABSTRACT

Bayesian hypothesis testing presents an attractive alternative to p value hypothesis testing. The most prominent advantages of Bayesian hypothesis testing include, first, the ability to quantify evidence, and, second, the ability to monitor and update this evidence as data come in, without the need to know the intention with which the data

were collected. Despite these practical advantages, Bayesian hypothesis tests are used relatively rarely. An important impediment to the widespread adoption of Bayesian tests is arguably the lack of user-friendly software for the run-of-the-mill statistical problems that confront psychologists for almost every experiment: the t-test, ANOVA, correlation, regression, and contingency tables. Here we introduce JASP (jasp-stats.org), an open-source, cross platform, user-friendly graphical software package that allows users to carry out Bayesian hypothesis tests for standard statistical problems. JASP is based in large part on the Bayesian analyses implemented in Morey and Rouder's powerful BayesFactor package for R. Armed with JASP, the practical advantages of Bayesian hypothesis testing are only a mouse click away.