JASP

A Fresh Way to Do Statistics

- **Free!**
- **Open-source**
- **User-friendly**
- **Ideal for students**

www.jasp-stats.org

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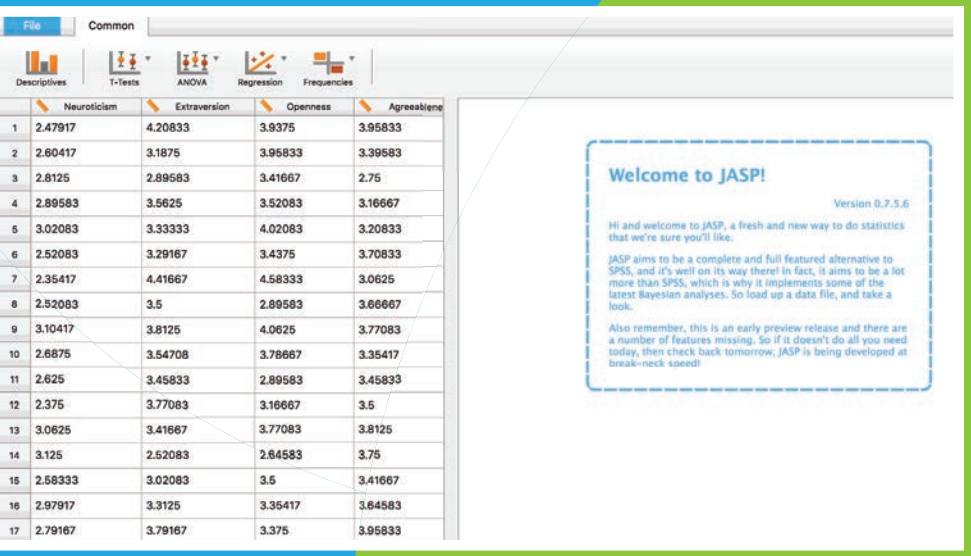
What is JASP?

JASP is a fresh way to do statistics. Completely free, open-source, and cross-platform, **JASP** allows its users to conduct statistical analyses with ease, using a spreadsheet layout and a familiar drag-and-drop interface.
JASP features popular classical analysis tools such as ANOVA and regression, but also contains their Bayesian counterparts.

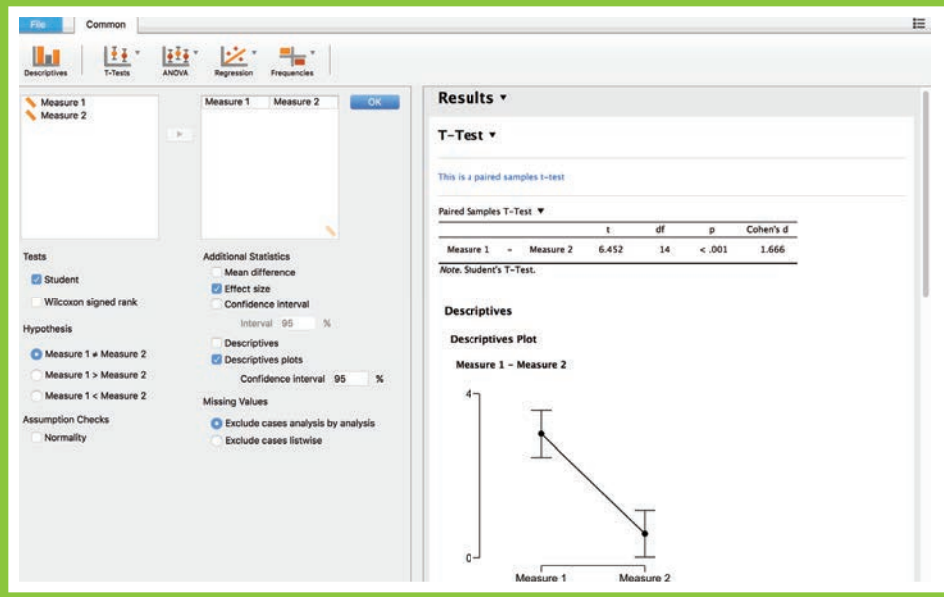


Where can I find JASP?

JASP can be freely downloaded at www.jasp-stats.org. **JASP** is available for Windows, Mac, and Linux. The website also contains a demo of **JASP** in action.

Why use JASP?

JASP offers many advantages over popular competing packages. Compared to commercial packages such as SPSS, **JASP** is free, open-source, actively developed, and includes Bayesian methods for parameter estimation and hypothesis testing. Compared to free packages such as R, **JASP** offers a smooth “drag and drop” user experience that removes the requirement of computer programming that many students and practitioners experience as burdensome and distracting. Compared to all other packages, the **JASP** base package offers a targeted and popular series of tests, both in their classical and Bayesian manifestations.



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Why does JASP feature both classical and Bayesian analyses?

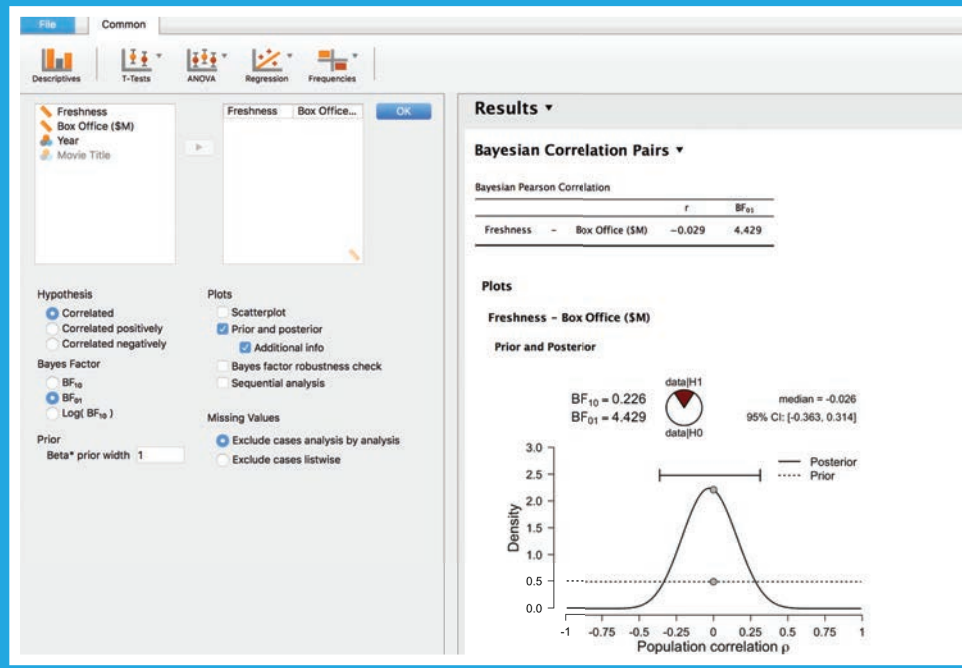
A Bayesian analysis describes how an optimal observer learns from experience. The optimal observer makes predictions about the world, pits these predictions against reality, and uses the resulting prediction errors to govern a coherent update of knowledge. In statistics, the Bayesian predict-observe-update cycle can be used both for hypothesis testing and for parameter estimation.

The Bayesian framework can address questions that fall outside the purview of the classical framework. In contrast to a p-value, a Bayes factor hypothesis test can quantify evidence. Monitoring the evidential flow makes tests ethical and efficient. In contrast to classical confidence intervals, Bayesian credible intervals take into account background information and allow for an intuitive interpretation.

"Bayesian data analysis was never easier"

Ioannis Ntzoufras

Despite the conceptual advantages of the Bayesian framework, modern statistical practice is enriched by contributions from Bayesian and classical statisticians. For this reason **JASP** provides both types of analysis, thereby facilitating inclusive statistical reporting and a better understanding of what each statistical paradigm has to offer.



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What makes the JASP interface unique?

The **JASP** graphical user interface is based on modern design principles. Together, these principles create a pleasant and intuitive working environment:

- **JASP** provides the user with immediate feedback.
- **JASP** dynamically updates the results when the input changes.
- **JASP** initially provides minimalist output, preventing confusion.
- **JASP** uses progressive disclosure, producing increasingly complex output upon demand.
- **JASP** facilitates transparent reporting by connecting output to input without the need for explicit syntax.
- **JASP** produces tables and figures that are accessible, informative, and attractive.

How can I use JASP for teaching?

JASP is in a state of constant refinement and accelerated growth. Analyses, plots, and dedicated help tools that are not currently implemented may well be available in the next release. Nevertheless, the core functionality stands, and in its present form **JASP** is ready for use in standard statistics courses as a replacement or supplement to programs such as SPSS or R.

In the near future, **JASP** will come bundled with a series of course materials containing concrete examples and explanations. The **JASP** YouTube channel features a series of educational videos that provide an impression of how **JASP** may be used in teaching. In our experience, students greatly appreciate a free and user-friendly alternative for their statistical analyses.

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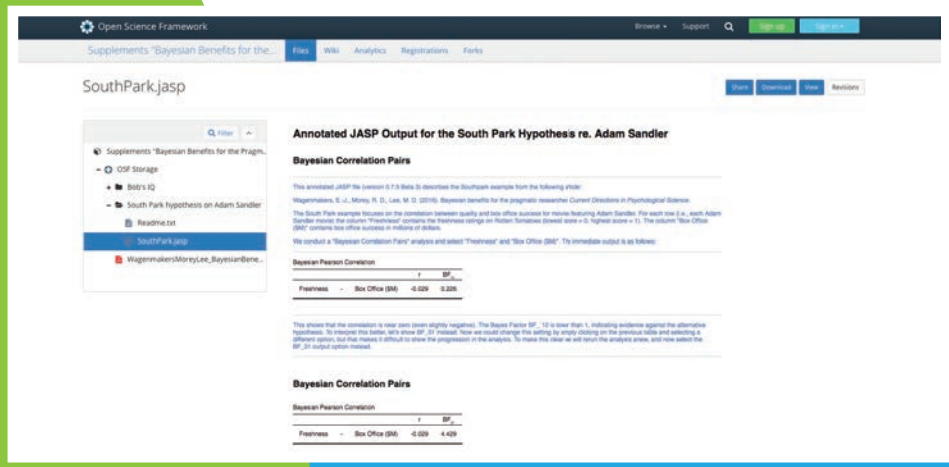
How can I interface JASP with the Open Science Framework?

The Open Science Framework (OSF) has a **JASP** previewer, which allows anybody to inspect **JASP** output on the OSF, even without having **JASP** installed. Together with the opportunity to add annotations, the **JASP** previewer facilitates transparent reporting, effective teaching, and efficient communication with co-authors.

Moreover, **JASP** allows its users to log in to their OSF accounts and upload, download, and sync files. We have used this functionality for teaching; through the **JASP**-OSF interface, students can conduct analyses, receive feedback, and revise their reports.

"JASP and OSF are like an original result and its replication - they are beautiful together."

Brian Nosek



How can I use JASP for research?

JASP can be used for research just like one would use SPSS and R. We are completing a series of invited peer-reviewed articles that outline the main philosophy and basic functionality of **JASP**, and these articles may be cited whenever **JASP** is used for research. The current citation for the package itself is:

The JASP Team (2016). JASP (Version 0.7.5.6)[Computer software]. https://jasp-stats.org/.

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How do I use JASP for business?

Companies may benefit from **JASP** in several ways. First, JASP has a graphical user interface that is easy to navigate, and this greatly facilitates statistical communication and consulting. Second, **JASP** can be customized with add-on modules to present statistical tools available for specific clients only. Third, the Bayesian analyses implemented in **JASP** can be directly combined with utilities to calculate the business decision with the largest expected payoff. Fourth, **JASP** offers technical support at a lower cost than that charged by for-profit organizations such as IBM.

For details on how to use **JASP** for business, please Email **services@jasp-stats.org**.

Who created JASP?

The development of **JASP** is an ongoing team effort made possible by the ERC grant “Bayes or Bust!” from the European Union. Current team members include:


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Patrick Knight


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Alexander Ly


Tahira Jamil


Dora Matzke


Sacha Epskamp


Richard D. Morey


Eric-Jan Wagenmakers

Want to know more about JASP?

Each year in August, the JASP team organizes the Amsterdam workshop on Bayesian statistical inference. More information about the workshops is available on www.jasp-stats.org/workshop.

Download JASP at:
jasp-stats.org

Source code available at:
github.com/jasp-stats

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