

## Introduction to Bayesian argumentation

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Thursday 28 April, 10.30-12.00 and 13.30 to 15.00

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<http://www.klemens.sav.sk/fiusav/?q=en>

Registration is required. Please register by April 20th at:

[https://docs.google.com/forms/d/1Oet9qzdXZlpoD1Q\\_PifTwVqpbW8P3DM6buaWM-MXwCo/viewform](https://docs.google.com/forms/d/1Oet9qzdXZlpoD1Q_PifTwVqpbW8P3DM6buaWM-MXwCo/viewform)

The purpose of this 3 hour workshop is to assist those already familiar with classical propositional logic to acquire the necessary skills in order to reconstruct natural language arguments, particularly the degree to which a premise or conclusion is accepted, by means of (subjective) probabilities. The main learning outcome is the participants' (improved) ability to engage with the literature on the Bayesian approach to natural language argument so as to possibly contribute to it. The workshop provides participants with access to recent developments in formal philosophy that can facilitate interdisciplinary research and new research options particularly for those who teach argumentation analysis and evaluation.

During the morning, participants are introduced (i) to Bayes' theorem, which serves as a normative standard for evaluating arguments as to being strong or weak ones, and to (ii) formal measures used for this purpose, namely measures of argument strength and argument force. In exemplary manner, participants employ their newly acquired knowledge during the afternoon session to the analysis of selected instances of classical fallacies. This serves to better understand how the Bayesian approach to natural language argument models the way in which their fallaciousness stands or falls with assumptions that can be rendered precise by means of employing subjective probabilities. At the end, future research issues are briefly presented, and occasion for group discussion is provided.

## Key references

- Bayes, T., & Price, R. (1763). An Essay towards solving a Problem in the Doctrine of Chance. By the late Rev. Mr. Bayes, communicated by Mr. Price, in a letter to John Canton, M. A. and F. R. S. *Philosophical Transactions of the Royal Society of London*, 53, 370–418.
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- Fitelson, B. (2001). Studies in Bayesian confirmation theory. Dissertation, University of Wisconsin at Madison. <http://fitelson.org/thesis.pdf>.
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