Contribution ID: **19**   Type: **Lecture**

Bayesian Data Analysis (lecture 2)

Tuesday 6 March 2018 14:00 (1 hour)

Bayesian analysis offers a powerful tool for data analysis,
as it is able to make probabilistic statements about unknown parameters. This lecture will focus especially on
the bayesian viewpoint of data analysis and explore various important methods.

In the first part of the lecture, we will deepen our understanding of the fundamentals of bayesian reasoning.
We will review basic techniques on how to construct confidence intervals and how to fit a model within the
bayesian
framework but we will also go into more detail and discuss for example the role of the prior.

The second part of the lecture will cover further examples and applications that heavily rely on the bayesian
approach, as well as some computational tools needed to perform a bayesian analysis.

Presenter: GRAF, Christian (Max-Planck-Institut fur Physik (DE))