Evidence in quantum data

The data acquired in quantum experiments are unavoidably affected by statistical fluctuations and, therefore, the interpretation of the data must rely on methods from statistics. While p-values and confidence intervals are routinely reported, this practice is questionable. Bayesian concepts, instead, fit quite naturally to quantum data. This talk deals with various aspects of Bayesian methodology, in particular with the Bayesian notion of what constitutes evidence in favor of, or against, a hypothesis.