

Wednesday, 30 November 2:00-4:00 pm

**RESEARCH SEMINAR IN THE PHILOSOPHY OF NATURAL SCIENCES**

**Roman Frigg/Stephan Hartmann**

**Stan Larski**

*Akaike and Bayesian Information Criteria*

Abstract

Consider the problem of model selection in a context of curve-fitting – that is, what sort of curve should one fit to a given set of observations? Here simplicity comes as an epistemic aid. AIC and BIC are mathematical results which allow us to trade off the degree of fit of a model to data and simplicity (as measured by the number of adjustable parameters). We investigate the properties of and the differences between AIC and BIC, which are manifestations of differences between frequentist and Bayesian statistical methodologies.