

# Ankündigung Vortrag

Die Abteilung Methoden und Evaluation/ Qualitätssicherung von Prof. Dr. Steffi Pohl lädt Sie herzlich zum Vortrag

**Bayesian Model Averaging for Improved Prediction**

**in the Social and Behavioral Sciences**

**David Kaplan (University of Wisconsin – Madison, USA)**

an der Freien Universität Berlin ein.

## Inhalt des Vortrags:

This paper examines Bayesian model averaging as a means of improving the predictive performance of statistical models commonly encountered in the social and behavioral sciences. The Bayesian framework recognizes that in addition to parameter uncertainty as expressed through the prior distribution, there is also uncertainty in the choice of models themselves insofar as a particular model is chosen based on prior knowledge of the problem at hand. The current approach to addressing the problem of model uncertainty lies in the method of Bayesian model averaging. Bayesian model averaging is a method of model combination that searches the model space for a set of sub-models that satisfy certain scientific principles. A new set of parameters are formed as a weighted combination of the estimates of the sub-models, weighted by each model's posterior model probability. We demonstrate the utility of Bayesian model averaging for prediction in the social and behavioral sciences with three examples: Bayesian regression analysis, Bayesian logistic regression, and a recently developed approach for Bayesian structural equation modeling. In each case, the model-averaged estimates are shown to yield better prediction of the outcome of interest than any sub-model based on predictive coverage and the log-score rule.

## Informationen zum Dozenten

David Kaplan ist Patricia-Busk-Professor für Quantitative Methoden am Department of Educational Psychology an der University of Wisconsin – Madison, USA. Er ist einer der renommiertesten Forscher auf dem Gebiet Bayesianischer Methoden in der Bildungsforschung. David Kaplan ist Honorary Research Fellow am Department of Education an der University of Oxford. Er ist ein gewähltes Mitglied der National Academy of Education, Humboldt Research Award - Preisträger, Fellow der American Psychological Association sowie ein Jeanne Griffith Fellow am National Center for Education Statistics. Zudem ist David Kaplan unter anderem an der Planung der PISA-Studie (Programme of International Student Assessment) beteiligt.

Der Vortrag findet am **4. Februar 2016 von 16-18 Uhr an der Freien Universität Berlin** statt. Genaue Informationen zum Raum werden rechtzeitig auf der Webseite des Arbeitsbereiches veröffentlicht. Eine Voranmeldung ist nicht nötig.