**Introduction to Bayesian Data Analysis**

By

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Friday, October 5, 2012 – 2:00 - 4:00 – Ballantine 006

This workshop introduces you to Bayesian data analysis, hands on. Intended audience is graduate students and others who want a ground-floor introduction to Bayesian analysis. No mathematical expertise is presumed. Complete computer programs will be provided free: find installation instructions and more information about the workshop at [http://www.indiana.edu/~jkkteach/WIM2012.html](http://www.indiana.edu/~jkkteach/WIM2012.html) before arriving. You do not need to bring a notebook computer to the workshop, but you are invited to bring one so that you can run the programs and see how their output corresponds with the presentation material. The two-hour workshop will rocket through the following topics, allocating about a half hour to each.

- Why you should be embarrassed to report p values and why you should be proud to do Bayesian analysis.
- Bayes’ rule, grid approximation, and R.
- Markov Chain Monte Carlo and BUGS.
- Linear regression.

If time: Hierarchical models.

Unfortunately it also does not involve Monte Carlo. Linear regression. If time: Hierarchical models. But there won’t be time. So you’ll have to take the course or read the book.

John Kruschke is five-time winner of Teaching Excellence Recognition Awards from Indiana University, where he is Professor of Psychological and Brain Sciences, and Adjunct Professor of Statistics. He has written an introductory textbook on Bayesian data analysis; see also the articles linked above. His research interests include models of attention in learning, which he has developed in both connectionist and Bayesian formalisms. He received the Troland Research Award from the National Academy of Sciences.

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