# Graduate Colloquia

# Prof. Andrew E. Gelman

# Columbia University

**NIU**

Sponsored by **The Graduate school** and **The Division of Statistics**

**Professor Andrew Gelman is a professor of Statistics and Political Science and director of the Applied Statistics at Columbia University. He has received the Outstanding Statistical Application award from the American Statistical Association, the award for best article published in the American Political Science Review, and the Council of Presidents of Statistical Societies award for outstanding contributions by a person under the age of 40. He has written about 300 papers on top journals and 9 books. His publications and Statistical software, in particular for Bayesian computation, are strongly cited by researchers from wide range of disciplines. His lecture will be a great opportunity to meet his idea for Bayesian Statistical Analysis. The graduate students will benefit from the lecture delivered by the renowned statistician. He has done research on a wide range of topics, including: why it is rational to vote; why campaign polls are so variable when elections are so predictable; why redistricting is good for democracy; reversals of death sentences; police stops in New York City, the statistical challenges of estimating small effects; the probability that your vote will be decisive; seats and votes in Congress; social network structure; arsenic in Bangladesh; radon in your basement; toxicology; medical imaging; and statistical methods.**

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**General Lecture: October 21, 2016, Friday, 2-3 p.m.** Room 212 DuSable Hall
**Title: Crimes Against Data**

### Abstract

Statistics has been described as the science of uncertainty. But, paradoxically, statistical methods are often used to create a sense of certainty where none should exist. The social sciences have been rocked in recent years by highly publicized claims, published in top journals, that were reported as "statistically significant" but are implausible and indeed could not be replicated by independent research teams. Can statistics dig its way out of a hole of its own construction? Yes, but it will take work..

**Seminar: October 21, 2016, Friday, 4-5 p.m.** Room 212 DuSable Hall
**Title: Solving Statistics Problems Using Stan**

### Abstract

Stan is a free and open-source probabilistic programming language and Bayesian inference engine. In this talk, we demonstrate the use of Stan for some small fun problems and then discuss some open problems in Stan and in Bayesian computation and Bayesian inference more generally