



The Sport Statistician's Toolbox in R

satRday

March 2018

Instructor: Stephanie Kovalchik

Overview:

I am very pleased you will be participating in the *The Sport Statistician's Toolbox* workshop. The workshop will cover a number of skills and statistical models that are common in sports statistics and show how each can be implemented in **R**. The workshop will introduce participants to a range of **R** packages and real sports examples will be used throughout. It will be very hands-on!

After completing this workshop, participants will be able to gather and clean public sports data more effectively, explore data with graphics, apply several common models used in sport, and share their sports statistics ideas through a blog.

A brief outline of the workshop is given below. Further details and instructions will be sent to participants prior to the conference.

Workshop Outline:

- Sports data resources
- Web scraping
- Data exploration and validation
- Sports models and real applications

- *Bradley-Terry paired comparison models*. Application: Which team is the strongest in the English Football Association League?
 - *Pythagorean Theorem*. Application: How can we predict an NBA teams expected wins for the season?
 - *Forecasting*. Application: What is the chance that a tennis serve will be a service winner?
 - *Generalized Additive Models*. Application: How can we model the strike zone from baseball tracking data?
- Sports Blogging

Contact:

If you have questions before or after the conference, please send an e-mail to me (Stephanie Kovalchik) at s.a.kovalchik@gmail.com.