



Mathematics & Statistics Colloquium

When: Wednesday, November 19, 2:00 pm - 2:50 pm

Where: Lee Drain Building 400

Statistical Applications in Cricket Data

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In this talk I will discuss the results of two different studies in which cricket data can be used to introduce the statistical topics effectively in classroom.

1. Principal Component Analysis is widely used in applied multivariate data analysis, this study shows how to motivate student interest in this topic using cricket data. Here, principal component analysis is successfully used to rank the cricket batsmen and bowlers who played in the Indian Premier League (IPL) competition. In particular, the first principal component is seen to explain a substantial portion of the variation in a linear combination of some commonly used measures of cricket prowess.
2. Models for count data have been widely applied in a variety of sports. The Poisson model and negative binomial model are two basic count response models. Following the usual practice, due to over-dispersion of data, negative binomial regression model can be used to predict the number of runs scored by a team against different types of bowlers at different stages of the Twenty20 cricket matches. In particular, economy rate during the PowerPlay is a key interest in this study.