Departmental Colloquium

Dr. Richard Auer
Department of Mathematics and Statistics
Loyola University
September 17th, 2025, Knot Hall B01 3:00 PM,
Zoom link : https://loyola.zoom.us/j/81031149427
Meeting ID: Meeting ID: 810 3114 9427
Passcode: mathstat

Statistical Sports Modelling: What to Teach and How to Teach It!

Abstract

Statistical Topics taught in this course include: Multiple Regression Analysis, Analysis of Variance, matrix representation of Linear Models, applying restrictions on model parameters, the notion of estimability, logistic regression, odds, odds ratio, measuring logistical model efficiency, using calculus and the Cumulative Distribution Function of Exponential Variables to randomly generate football outcomes in a Monte Carlo Study, and Flow Chart preparation for R-Programing. Methods of teaching included: in-class student brainstorming, several computer based joint projects to fit models or run simulations, one Power Point presentation (per-student pair) of a sports related application, student-based flowcharts for simulating an NFL game, full-on class lectures that prepared students for homework problems based on the statistical topics listed above, and exams based on the lectures and the homework problems.

This talk is geared towards students .

Refreshments will be served.

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