

# BI-CO MATHEMATICS COLLOQUIUM

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## "Mathematics of Pari-Mutuel Wagering"

Monday, December 8, 2014

Talk at 4:00 - H109

Tea at 3:30 - KINSC Math Lounge, H208

### **Abstract:**

This talk will outline research done to make use of mathematical and statistical methods to predict the outcome of a horse race. Observable aspects of horse and jockey performance are combined with inferences made from historical data to predict outcomes in the trifecta and superfecta wagering pools. Nonlinear numerical optimization techniques are used to optimize the wagering amounts in order to maximize the utility of the optimal bettor's wealth. The presentation should be accessible to an undergraduate mathematics and statistics audience.

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