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**Glenn Sidle\*** (gdsidle@ncsu.edu), **John David** and **Hien Tran**. *Predicting NCAA Lacrosse Games with Cohorts of Neural Networks*. Preliminary report.

In this paper, we examine the ability of artificial neural networks to predict the outcome of NCAA Division I lacrosse games. We used statistics generally found in the box score of any lacrosse game, readily available on the internet, to create a model that predicted the spread of a game relative to the home team. Going beyond the box score, we used efficiency-based statistics (i.e. shots per possession, turnovers per possession) to create a model that was unbiased towards fast- or slow-paced teams. After creating our model, we looked at which statistics were most important for victory using a derivative-based sensitivity analysis, and we assessed the performance of our model by comparing the percentage of victors predicted correctly and the average spread error to Laxpower.com's predicted spreads. Because lacrosse is a sport that has been relatively unknown to the quantitative analysis community, many of the techniques we used to determine which statistics to use came from analogous work done in basketball. (Received September 08, 2014)