

A Word from the Editor

The editorial board is pleased to present our latest issue of the *Mathematics Exchange*, a collection of four articles of interest to a broad audience at the undergraduate level. We greatly appreciate the authors' efforts to share their work, and we hope that this will inspire our readership to follow their example. We believe that getting students involved in publishing their mathematical work is a critical milestone on the way to finding their (permanent) place in the mathematical community. This is the mission of the *Mathematics Exchange*, and we are thrilled to pursue this important goal.

The first article is the third in a series of papers focused on the larger project to classify the indecomposable solvable seven-dimensional Lie algebras with six-dimensional nilradical. It utilizes a known technique to address the case where the nilradical is isomorphic to a direct sum of the first five-dimensional non-decomposable algebra and the one-dimensional algebra, denoted by $A_{5,1} \oplus \mathbb{R}$.

The second article utilizes predictive modeling to attack the problem of creating the "perfect bracket" for the NCAA men's basketball tournament. Though not able to achieve perfection, the authors discuss their attempts to try to predict the highest-scoring bracket possible, showing both their process and the outcomes from several different approaches.

Article three explores the relationship between office hour usage by college students and course grades. The author presents data, shows when significant observations can be made, and offers explanations for various phenomena that occur in the data.

The final article discusses statistical clustering, an exploratory method for finding groups of unlabeled observations in potentially high dimensional space, where each group contains observations that are similar to each other in some meaningful way. The article introduces three clustering methods and compares their results when applied to a standard data set.

We hope that you will enjoy reading this issue of the *Mathematics Exchange*. As always, we welcome and encourage ideas on how we can better serve our readers.

Rich Stankewitz