# MG226: Advanced Analytics
## ANOVA Assignment
## Due Date: February 23, 2018

A company that manufactures large industrial fans recently acquired a smaller competitor manufacturing fans with stronger baldes. The companies used different manufacturing methods to attach the fan blades (spyders) to the fan hubs, which give the assembly its strength. In an attempt to determine the best manufacturing process, an experiment was designed to investigate the better levels of:

1. two types of hole in the spyder

2. two assembly methods, and

3. two hub (or barrel) shapes.

The full factorial design resulted in eight treatments. Destructive testing was used to break the spyder from the hub and the torque required to break the part was measured in foot-pounds. The levels of the three factors are denoted by $\pm 1$ and the data file `spyder.data` is available in the MG222 Data Files page. Analyse the data to determine the optimal levels of the three factors resulting in the strongest spyders.