

1116-S1-2766      **Rachel L. Bayless\*** (rbayless@agnesscott.edu), Agnes Scott College, 141 E. College Ave, Decatur, GA 30030, and **Rachelle C. DeCoste**. *Modeling word propagation: a connection between ODE and linguistics*. Preliminary report.

The rate that a particular word propagates through the English vernacular can be modeled via differential equations. Google Ngram Viewer compiles data (dating back to the 1500's) on the number of times specific words are printed in texts each year. In this talk, we explain how the data from Google Ngram Viewer can be used to create a variety of modeling projects. We also introduce an in-class exercise that walks students through modeling the propagation of the word “jumbo” via exponential growth. (Received September 22, 2015)