1135-H5-374   **Izabel Aguiar***, izabel.p.aguiar@gmail.com, and **Jessica Deters** and **Jacquie Feuerborn**. *The Mathematics of Gossip.*

In this project we develop a numerical model to investigate the spread of rumors, lies, and gossip throughout a community using an adapted susceptible-infected-recovered (SIR) dynamical system. We explore parameter dependence of the model in forms of various 'rumor spreaders'. We highlight how mathematics can be applied in creative ways to illuminate and explore new quantitative aspects of sociological systems. (Received August 29, 2017)