1145-91-1929   **Alexandria Volkening*** (`volkening.2@mbi.osu.edu`), **Daniel Linder**, **Mason A Porter** and **Grzegorz Rempala**. *Forecasting U.S. elections with compartmental models.* Preliminary report.

Forecasting U.S. elections involves polling likely voters, making assumptions about voter turnout, and accounting for various features such as state demographics and voting history. While political elections in the U.S. are decided at the state level, errors in forecasting are correlated between states. With the goal of better understanding these correlations and shedding light on the election prediction process, we are modeling the evolution of political opinions in recent presidential, senate, and gubernatorial elections. Our compartmental modeling approach borrows ideas from the field of epidemiology, and we base our parameters for how states influence each other on public polling data from HuffPost and RealClearPolitics. Our work suggests a new method to elucidate and study how states are related and illustrates how accounting for uncertainty in different ways impacts election forecasts. (Received September 24, 2018)