

1145-O1-2143 **Francesca Bernardi*** (bernardi@math.fsu.edu) and **Manuchehr Aminian**
(manuchehr.aminian@colostate.edu). *Teaching the SIR model in historical context: primary sources to modern applications.*

The majority of students enrolled in ODEs-focused classes are STEM majors, but not necessarily mathematics majors. Using ODEs to model real-world problems can be a gateway into applied mathematics for many students. Historical context adds to the full picture of why ODEs are important and attracts the students for whom cut and dry mathematics is not always appealing. We will discuss the use of historical documents and primary sources, as well as data and articles from the news, to teach students about mathematical epidemiology. Starting from the recent Ebola outbreak, we guide students through the derivation of the SIR model by reading historical documents the from early 1900s and the seminal 1927 paper from Kermack and McKendrick. Students explore mathematical aspects of the model and its implications on real-life scenarios. This curriculum has been assigned (in different versions) both as part of a class syllabus and as extra credit; feedback from students has been encouraging. (Received September 24, 2018)