Allison Arnold-Roksandich* (allisonarnoldrok@boisestate.edu). Creating Several Infinite Classes of Mock and Quantum Modular Forms.

In 2013, Lemke Oliver created a list of all eta-quotients which are theta functions. In 2016, Folsom, Garthwaite, Kang, Swisher and Treneer utilized this list of "eta-theta" functions along with Zwegers's construction of mock theta functions to create a set of mock modular forms which are also quantum modular forms. Later in 2016, Diaz, Ellefsen and Swisher generalized a subset of these quantum modular forms to a single general form which included the every element of this subset. This talk will discuss the work done to extend this generalization to a larger general form which includes all functions made by Folsom et al. (Received September 07, 2019)