

1154-11-1491      **Marie Jameson\*** (mjameso2@utk.edu) and **Sharon Garthwaite**. *Incongruences for modular forms and applications to partition functions.*

The study of arithmetic properties of coefficients of modular forms enjoys a rich history, including deep results regarding congruences in arithmetic progressions. Recently, work of S. Ahlgren, B. Kim, N. Andersen, and S. Löbrich have employed the  $q$ -expansion principle of P. Deligne and M. Rapoport in order to determine more about where these congruences can occur. Here, we extend the method to give additional results in a large class of modular forms, and investigate the consequences of that result. (Received September 15, 2019)