1116-11-2849   **Zhu Cao*** (`zcao@kennesaw.edu`), 1100 S Marietta Pkwy, Marietta, GA 30060, and **Shichao Chen**. *Some Arithmetic Properties of Partitions and Quadratic Forms.* Preliminary report.

One of the important problems in number theory is to study the number of representations of integers by quadratic forms. In this talk, we will present some arithmetic relations on these representing functions, which are obtained via elementary q-series manipulation and the theory of modular forms. As applications, we obtained some arithmetic properties for certain partition functions. (Received September 22, 2015)