1046-05-1752   **Qing Xiang*** (`xiang@math.udel.edu`), Department of Mathematical Sciences, University of Delaware, Newark, DE 19716. *Modular ranks of the adjacency matrices of strongly regular graphs arising from semifields.*

A construction of strongly regular graphs (srg) was given recently by Weng, Qiu, Wang and Xiang. The srg constructed in this way have the same parameters as those of the Paley graphs. One possible way to show that the srg from semifields are not isomorphic to the Paley graphs is to compute the p-ranks of the adjacency matrices involved. The sizes of these adjacency matrices grow very large and the matrices are dense. In this talk we will discuss the construction of the srg and the computations of p-ranks of the adjacency matrices by Saunders and collaborators. (Received September 16, 2008)