1108-20-469 **George Glauberman** and **Justin Lynd*** (jlynd@math.rutgers.edu), Rutgers University, Department of Mathematics, 110 Frelinghuysen Rd, Piscataway, NJ 08854. *Centric linking systems and control of weak closure in finite groups.* Preliminary report.

A. Chermak has recently established that to each saturated fusion system over a finite p-group, there is a unique associated centric linking system. In particular, this result, and B. Oliver's reformulation of it, give new proofs of the Martino-Priddy conjecture, which says that two finite groups have homotopy equivalent p-completed classifying spaces if and only if they have the same fusion system at the prime p. Both Chermak's and Oliver's proofs depend on the classification of finite simple groups in an indirect way. I will discuss the homological obstruction theory developed by Broto, Levi, and Oliver to investigate this problem (which plays a central role in Oliver's proof), and explain how variations on classical results concerning control of weak closure in finite groups allow for a classification-free proof of Chermak's Theorem, at least when p is odd. (Received January 19, 2015)