

**A. Glessner.** *Sparse Fusion Systems.*

In studying fusion systems, one is inexorably led towards proving statements by considering a minimal counterexample and showing that the accompanying fusion system is constrained, hence modeled by a finite group. Commonly, the fusion system involved has very few subfusion systems. In an extreme case, we call the fusion system sparse. We show that for odd primes, these fusion systems are always the fusion system of a constrained finite group. In this talk, we will give some basic properties of sparse fusion systems, allowing us to streamline the proof of the Glauberman-Thompson  $p$ -nilpotency criterion as well as to give a proof of a new result based on an unpublished lemma of Navarro with an elementary proof due to Isaacs.