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**Chris Jennings-Shaffer\*** (cjenningsshaffer@ufl.edu). *Congruences for the Number of Smallest Parts in Partitions.*

One point of interest in counting the number of parts in partitions, and of related partition like objects, are the Ramanujan type congruences of the generating functions. We discuss two  $q$ -series techniques for proving such congruences. Both methods start by taking a generating function  $S(q)$  for the smallest parts function and introducing a new variable to get a function  $S(z,q)$  with  $S(1,q) = S(q)$ . One technique is to find the dissection of the series  $S(z,q)$  when  $z$  is a fixed root of unity. The second is to find an identity expressing  $S(z,q)$  as a Hecke-type double sum in which it is convenient to set  $z$  to be root of unity. Both methods have their advantages and disadvantages. For examples we look at the number of smallest parts in overpartitions with various restrictions. (Received September 15, 2014)