

1116-11-1298

F. G. Garvan* (fgarvan@ufl.edu). *Extending Ramanujan's Dyson rank function identity to all primes greater than 3.* Preliminary report.

Let $R(z, q)$ be the two-variable generating function for Dyson's rank function. In his lost notebook Ramanujan gives the 5-dissection of $R(\zeta_p, q)$ where ζ_p is a primitive p -th root of unity and $p = 5$. This result is related to Dyson's famous rank conjecture which was proved by Atkin and Swinnerton-Dyer. We show that there is an analogous result for the p -dissection of $R(\zeta_p, q)$ when p is any prime greater than 3. This extends previous work of Bringmann and Ono, and Ahlgren and Treener. (Received September 18, 2015)