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**Brandt Kronholm\*** (jkronhol@whittier.edu), Brandt Kronholm, Whittier College, 13406 E. Philadelphia St., Whittier, CA 90608-0634. *New Ramanujan Congruence Properties of the Restricted Partition Function  $p(n, m)$  Modulo Prime Powers.*

Ramanujan-type congruences for the unrestricted partition function  $p(n)$  are well known and have been studied in great detail.  $p(n, m)$  is the restricted partition function that enumerates the number of partitions of  $n$  into exactly  $m$  parts.

The close relationship between  $p(n)$  and  $p(n, m)$  is clear:

$$p(n) = p(n, 1) + p(n, 2) + \cdots + p(n, n - 1) + p(n, n).$$

Let  $\ell$  be any odd prime. The existence of several infinite families of Ramanujan-type congruences for  $p(n, \ell)$  have recently been established for all prime power moduli and surprisingly for all  $n$ . In this talk we focus our attention not solely on  $n$  but on  $m$ , the number of parts for several intriguing results.

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