1078-11-283   **John J Webb*** (`webbjj@wfu.edu`), Wake Forest University, Department of Mathematics, PO Box 7388, Winston-Salem, NC 27109. *ℓ-adic properties of ℓ-regular partitions.* Preliminary report.

For a positive integer n, we call a non-increasing sequence of positive numbers whose sum is n a partition of n. If none of the parts of a partition is divisible by an integer k, we say the partition is k-regular. Let $\ell \geq 5$ be prime. We adapt the recent techniques developed by Folsom-Kent-Ono to study congruences for ℓ-regular partitions modulo powers of ℓ. In particular we prove analogues of the famed Ramanujan congruences when $\ell \in \{5, 7, 11\}$. (Received December 12, 2011)

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