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**Shashank Kanade\*** (kanade@ualberta.ca), **Matthew C Russell** (russell12@math.rutgers.edu) and **Debajyoti Nandi** (djn@cmi.ac.in). *A new search for partition identities motivated by Lepowsky-Wilson Z-algebras*. Preliminary report.

J. Lepowsky and R. L. Wilson, in their highly influential work, built a framework for interpreting, proving and finding partition identities using the representation theory of affine Lie algebras. They achieved this via the invention Z-algebras and what came to be known as vertex-operator-algebraic relations among Z-operators. In this talk, I'll report on a recent search (purely at the level of q-series) for new integer partition identities that is motivated by one aspect of Lepowsky and Wilson's mechanism. This new search is a variant of an earlier joint work with Matthew C. Russell and is a joint work with Debajyoti Nandi and Russell. (Received September 12, 2016)