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Alexander Berkovich* (alex@uf1.edu), Department of Mathematics, University of Florida,
358 Little Hall, Gainesville, FL 32611. *New Weighted Partition Identities, the Smallest Part of
Partition and all that.*

I explain how to use the q-binomial theorem, the q-Gauss sum, and the transformation of Jackson to discover and prove many new weighted partition identities. These identities involve unrestricted partitions, over-partitions and partitions with distinct even parts. Smallest part of the partitions plays an important role in this analysis. This talk is based on my joint work with Ali Uncu. (Received September 17, 2016)