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Dag Madsen* (dmadsen@syr.edu), Mathematics Department, 215 Carnegie, Syracuse University, Syracuse, NY. *T-Koszul algebras*.

Let $\Lambda = \bigoplus_{n \geq 0} \Lambda_n$ be a graded algebra over a field k . We assume $\dim_k \Lambda_i < \infty$ for all $i \geq 0$, but we do not assume that Λ_0 is semi-simple. Suppose $\text{gldim } \Lambda_0 < \infty$. Let T be a graded Λ -module concentrated in degree zero.

In this talk I propose the following new definition of T -Koszul algebras: Λ is a T -Koszul algebra if both (1) and (2) hold.

- (1) T is a tilting Λ_0 -module.
- (2) T is graded self-orthogonal as a Λ -module.

We prove that many quasi-hereditary Koszul algebras have a T -Koszul algebra structure coming from the standard (Verma) modules. (Received January 26, 2010)