1052-13-78   **Luchezar L. Avramov**, **Aldo Conca** and **Srikanth B Iyengar*** (`iyengar@math.unl.edu`),
305 Avery Hall, Department of Mathematics, Lincoln, NE 68588. *Free resolutions over Koszul algebras.*

For $R = Q/J$ with Q a commutative graded algebra over a field and $J \neq 0$, we relate the slopes of the minimal resolutions of R over Q and of $k = R/R_+$ over R. When Q and R are Koszul and $J_1 = 0$ we prove $\mathrm{Tor}_i^Q(R, k)_j = 0$ for $j > 2i \geq 0$, and also for $j = 2i$ when $i > \dim Q - \dim R$ and $\mathrm{pd}_Q R$ is finite. (Received September 01, 2009)