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Paolo Mantero and **Matthew Mastroeni*** (mmastro@iastate.edu). *The canonical module of a Koszul algebra*. Preliminary report.

We study under what conditions the canonical module of a Cohen-Macaulay Koszul algebra has a linear free resolution over its Koszul algebra, motivated by a question of Stillman asking whether this holds for all superlevel Koszul algebras. Using recent work of D'Alì and Venturello, we show that Stillman's question has a negative answer in general. However, we also highlight a number of cases where the canonical module does have a linear resolution and give some consequences for resolutions of modules over certain rings of geometric interest. (Received August 09, 2021)