Di-Ming Lu* (dmlu@zju.edu.cn), Department of Mathematics, Zhejiang University, Hangzhou, Zhejiang 310027, Peoples Rep of China. Koszulity of algebras with non-pure resolutions. Preliminary report.

We discuss certain homological properties of graded algebras whose trivial modules admit non-pure resolutions. Such algebras include both of Artin-Schelter regular algebras of types (12221) and (13431). The Koszul dual of the algebras are described by using A-infinity language. (Received July 31, 2008)