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Rachel N. Diethorn* (rngettin@syr.edu). *Generators of Koszul homology.*

One approach to understanding Koszul homology is to find, explicitly, its generators. In the first part of this talk, I will provide explicit formulas for the generators of Koszul homology on the minimal generators of an ideal J with coefficients in what we call a J -weak complete intersection module. This generalizes work of Herzog and of Corso, Goto, Huneke, Polini, and Ulrich. In the second part of this talk, I will demonstrate the utility of having such an explicit understanding of Koszul homology. In particular, I will discuss an application to the Koszul homology algebra of quotients by certain edge ideals. (Received September 14, 2019)