1176-13-350   **Keller VandeBogert*** (`kvandebo@nd.edu`). *Detecting Golodness via Deformation.*
Golod rings are rings for which the associated Koszul homology admits a trivializing higher order homology operation, known as a trivial Massey operation. Such rings are extremal objects from the perspective of commutative algebra and have more recently warranted closer study for their connections with moment-angle complexes in combinatorial algebraic topology. In this talk, we will introduce characteristic-free techniques for proving rings are Golod by deforming arbitrary quotient rings to those defined by monomial relations, and study conditions for which the associated Grobner degenerations can be used to check whether a ring is Golod. In particular, we give a concise proof of the fact that (any power of) ideals of maximal minors of (sparse) generic matrices define Golod rings in arbitrary characteristic. (Received January 25, 2022)