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**Jason D Gaddis\*** ([jdgaddis@uwm.edu](mailto:jdgaddis@uwm.edu)). *PBW deformations of Artin-Schelter regular algebras.*

In this talk, we explore properties of PBW deformations of Artin-Schelter regular algebras via their homogenizations. We explain how geometric tools of regular algebras can be used to determine simple modules of deformations. A classification in dimension 2 is presented as well as several examples in dimension 3. (Received September 14, 2012)