

1106-16-2021 **Roberto C Soto*** (roberto-soto@uiowa.edu). *Universal Deformation Rings and Semidihedral 2-groups*. Preliminary report.

Fix an integer $n \geq 3$, and let SD denote the semidihedral group of order 2^{n+1} . Suppose k is an algebraically closed field of characteristic 2, and V is an indecomposable kSD -module. If the stable endomorphism ring of V is isomorphic to k , then it follows from work of Bleher and Chinburg that V has a universal deformation ring $R(SD, V)$. This ring is characterized by the property that every lift of V over a complete local commutative Noetherian ring R with residue field k is, up to isomorphism, determined by a unique local ring homomorphism from $R(SD, V)$ to R . In this talk we introduce endo-trivial modules and discuss the connection between endo-trivial kSD -modules and those with stable endomorphism ring isomorphic to k . (Received September 15, 2014)