1116-16-674 **Paul Frank Baum*** (`pxb6@psu.edu`), Department of Mathematics, Penn State University, University Park, PA 16802. *Morita Equivalence Revisited.*

Let X be a complex affine variety and k its coordinate algebra. Equivalently, k is a unital algebra over the complex numbers which is commutative, finitely generated, and nilpotent-free. A k-algebra is an algebra A over the complex numbers $\mathbb{C}$ which is a k-module (with an evident compatibility between the algebra structure of A and the k-module structure of A). A is not required to have a unit. A k-algebra A is of finite type if as a k-module A is finitely generated. This talk will introduce — for finite type k-algebras —a weakening of Morita equivalence called geometric equivalence. The new equivalence relation preserves the primitive ideal space (i.e. the set of equivalence classes of irreducible A-modules) and the periodic cyclic homology of A. However, the new equivalence relation permits a tearing apart of strata in the primitive ideal space which is not allowed by Morita equivalence. The ABPS (Aubert-Baum-Plymen-Solleveld) conjecture asserts that if G is a connected split reductive p-adic group, then the finite type algebra which Bernstein assigns to any given Bernstein component is geometrically equivalent to the coordinate algebra of the associated extended quotient . (Received September 10, 2015)