1025-14-221 **Max Lieblich*** (lieblich@math.princeton.edu), Department of Mathematics, Princeton University, Fine Hall, Washington Road, Princeton, NJ 08544-1000. *A derived Skolem-Noether theorem and compactified moduli of Azumaya algebras.*

We describe a compactification of the space of Azumaya algebras on a proper scheme using certain algebra objects in the derived category. The key is a derived version of the classical Skolem-Noether theorem on isomorphisms of matrix algebras. We will also discuss some consequences of the existence and properties of these spaces when the underlying scheme is a projective surface. (Received January 23, 2007)