

1058-08-13

**Jonathan D.H. Smith\***, Department of Mathematics, Iowa State University, Ames, IA  
50011-2064. *Lambda-rings of automorphisms.*

The set of automorphisms of a single algebra forms a group under composition. This talk considers the full set of all automorphisms of all algebra structures in a given abstract class on a fixed finite set. A lambda-ring, known as the automorphism type ring, is associated with this full set of automorphisms, and its structure is described. For certain classes (such as the variety of lattices), the full set of automorphisms is represented up to conjugation in the symmetric group by the automorphisms of a single, so-called representative algebra. In this case, the automorphism type ring is a subring of the ring of class functions on the automorphism group of the representative algebra. (Received November 28, 2009)