

**Meeting:** 999, Nashville, Tennessee, SS 4A, Special Session on Universal Algebra and Lattice Theory

999-08-42                    **Steven R. Givant\***, Department of Mathematics/Computer Science, Mills College, 5000  
MacArthur Boulevard, Oakland, CA 94613. *Simple Boolean algebras with operators.*

For many classes of Boolean algebras with operators (BAO), simple algebras play a particularly important role, since every algebra in the class is a subdirect product of simple algebras. A technique will be presented for analyzing simple BAO using a direct decomposition of the Boolean part of the algebra. In order for the technique to be effective, the operators of the algebra must be reasonably well behaved with respect to the Boolean components. A parallel technique for constructing simple BAO will also be discussed. It consists in forming a “semi-direct” product of a family of Boolean algebras endowed with a system of partial operators defined on the components of the family. The talk will focus on relation algebras as a paradigmatic class of BAO. (Received July 21, 2004)