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Kate S Owens* (kate.s.owens@gmail.com), Department of Mathematics, Texas A&M University, Blocker 623B, College Station, TX 77843-3368. *Finite axiomatizability and commutative directoids*. Preliminary report.

An algebra is a nonempty set equipped with some finitary operations. The equational theory of an algebra is the set of all equations true in that algebra. If we can deduce all of an algebra's true equations from a finite set of equations true in the algebra, we say that the algebra's equational theory is finitely axiomatizable. Ježek and Quackenbush devised a way to convert any up-directed partially ordered set into an algebra by imposing a two-place operation on the set which always outputs a common upper bound of its inputs and, in the case of comparable inputs, will output the larger. The resulting algebras are called directoids. In this talk we examine recent work on the finite axiomatizability of the equational theory of commutative directoids. (Received November 15, 2009)