1003-20-981   **Joshua B Palmatier*** (`joshua@math.binghamton.edu`), 1025 Reynolds Rd. Apt. Y10, Johnson City, NY 13790. *The Equivalence Between MV-algebras and Abelian l-groups with Strong Unit: Can It Be Extended?* Preliminary report.

In 1998, Cignoli and Mundici gave an elementary presentation of the equivalence between MV-algebras and abelian l-groups with strong unit. In this talk, I will consider m-zeroids–a generalization of MV-algebras–and define a generalization of abelian l-groups with strong unit called an abelian l-monoid with cancellative unit. I will then prove that if there is an injective mapping from Z, an m-zeroid, to M, an abelian l-monoid with cancellative unit, satisfying the usual basic properties, then Z must in fact be an MV-algebra. Thus an extension of the equivalence presented by Cignoli and Mundici for MV-algebras and abelian l-groups with strong unit is not possible. (Received October 01, 2004)