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**Adam W Parr\*** (aparr@uvi.edu), UVI, 2 John Brewers Bay, St Thomas, VI 00802. *Generalized Convolution Systems: Axioms and Properties.*

A convolution,  $*$ , is a binary operation that plays a multiplication-style role on the space  $M_b(X)$  of bounded measures on a locally compact space  $X$ . Convolutions of measures arise naturally from the study of topological groups. The study of topological groups leads to spaces that do not have a group structure, but do have a well-defined convolution of measures similar to what arises with groups. We investigate properties that are commonly used as axioms for hypergroup type convolution systems. A comparison of axiomatic structures used by signed hypergroup authors will be made, and an example will be given of a hypergroup whose dual satisfies all properties except for norm-bounding. (Received September 22, 2009)