1106-15-1293 **Elise McMahon***, 948 Heartland Dr., Manteca, CA 95337. *Methods of Relating Types of Canonical Algebraic Curvature Tensors.* Preliminary report.

We relate canonical algebraic curvature tensors that are built from a self-adjoint (R^S_A) or skew adjoint (R^Λ_A) linear map A. By Nash's imbedding theorem, an algebraic curvature tensor built from a self-adjoint operator is realizable as the curvature tensor of an embedded hypersurface in Euclidean space. We develop an identity to relate the skew-adjoint canonical algebraic curvature tensor to the self-adjoint canonical tensors, which will allow us to employ previous methods to solve new problems. We compute the structure group of R^Λ_A, and develop methods for determining the linear independence of sets which contain both builds of algebraic curvature tensors. We consider cases where the operators are arranged in chain complexes and we find this case to be highly restrictive. Moreover, if one of the operators has a nontrivial kernel, we develop a method for reducing the bound on the least number of canonical algebraic curvature tensors that it takes to write an algebraic curvature tensor. (Received September 11, 2014)