1056-17-181Audrey Malagon* (malagon_al@mercer.edu), Dept. of Mathematics, Mercer University, 1400Coleman Ave., Macon, GA 31207. Killing Forms of Isotropic Lie Algebras.

This paper presents a method for computing the Killing form of an isotropic Lie algebra defined over an arbitrary field based on the Killing form of a subalgebra containing its anisotropic kernel. This approach allows for streamlined formulas for many exceptional Lie algebras of inner and outer type E_6 and type E_7 and yields a unified formula for all Lie algebras of inner type E_6 , including the anisotropic ones. (Received August 12, 2009)