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Andrew Douglas* (afdouglas@gmail.com), Department of Mathematics, City University of New York, NYCCT, 300 Jay Street, Brooklyn, NY 11201, and **Delaram Kahrobaei** and **Joe Repka**. *Classification of embeddings of abelian extensions of D_n into E_{n+1} .*

An abelian extension of the special orthogonal Lie algebra D_n is a nonsemisimple Lie algebra $D_n \ltimes V$, where V is a finite-dimensional representation of D_n , with the understanding that $[V, V] = 0$. We determine all abelian extensions of D_n that may be embedded into the exceptional Lie algebra E_{n+1} , $n = 5, 6$, and 7 . We then classify these embeddings, up to inner automorphism. As an application, we also consider the restrictions of irreducible representations of E_{n+1} to $D_n \ltimes V$, and discuss which of these restrictions are or are not indecomposable. This is joint work with D. Kahrobaei and J. Repka. (Received February 11, 2013)