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Firas Hindeleh* (hindelef@gvsu.edu), 1 Campus Dr, Allendale, MI 49401, and **Anthony Pecoraro**. *Classifying Seven Dimensional Lie Algebras With Nilradical Isomorphic to $A_{5,2} \oplus \mathbb{R}$* . Preliminary report.

Low dimensional solvable Lie Algebra were completely classified up to dimension six. A general theorem asserts that if g is a solvable Lie Algebra of dimension n , then the dimension of its nilradical is at least $n/2$. For the seven dimensional algebras, the nilradical's dimension could be 4, 5, 6 or 7. The four and seven dimensional nilradical cases were classified. We examine the six dimensional nilradical case. We first looked for the six dimensional nilpotent algebras and found 32 algebras. In this talk we focus on the class where the nilradical is isomorphic to a direct sum of the five-dimensional algebra $A_{5,2}$ and the one dimensional algebra denoted by $A_{5,1} \oplus \mathbb{R}$. (Received September 19, 2016)