1062-17-214   **Bojko Bakalov*** (`bojko_bakalov@ncsu.edu`), **Alessandro D'Andrea** and **Victor G. Kac**.
Irreducible representations of finite simple Lie pseudoalgebras.

One of the algebraic structures that has emerged recently in the study of the operator product expansions in conformal field theory is that of a Lie pseudoalgebra. The finite simple Lie pseudoalgebras were classified in our previous work. We have shown that any finite irreducible module over a simple Lie pseudoalgebra of type W or S is either an irreducible tensor module or the kernel of the differential in a member of the pseudo de Rham complex. We now establish a similar result for Lie pseudoalgebras of type K, with the pseudo de Rham complex replaced by a certain contact reduction, which in the context of contact geometry was discovered by Rumin. (Received August 09, 2010)