1009-17-136 **Corina Calinescu*** (calines@math.rutgers.edu), Department of Mathematics, 110 Frelinghuysen Road, Piscataway, NJ 08854. *Principal subspaces of representations of affine Lie algebras and vertex operator algebras.*

Recently, S. Capparelli, J. Lepowsky and A. Milas initiated a new approach of getting recursions. An important role in this work is played by the principal subspaces of the standard $\widehat{sl(2)}$-modules.

In this talk we discuss the presentation of the principal subspaces of the standard $\widehat{sl(3)}$-modules. As a consequence of this result and vertex operator algebra techniques we obtain recursions. By solving these recursions we recover the graded dimensions of the principal subspaces. (Received August 14, 2005)