1048-17-226William J Cook* (cookwj@appstate.edu), Appalachian State University, Mathematical
Sciences – Walker Hall, 121 Bodenheimer Dr., Boone, NC 28608. On contragradient modules for a
vertex operator algebra associated with an affine Lie algebra. Preliminary report.

Modules for vertex operator algebras (VOAs) associated with affine Lie algebras are some of the most familiar examples of VOA modules. Given such a module, we will explicitly determine what its contragradient module is (up to equivalence).

With this information in hand, we will discuss the interaction of this contragradient action and the action of certain operators of Haisheng Li on the equivalence classes of irreducible modules.

Along with Yi-Zhi Huang, the author guided Sjuvon Chung and Christopher Sadowski's study of these actions during Rutgers University's REU program this past summer. (Received February 09, 2009)