

1151-17-287

Katrina Barron (kbarron@nd.edu) and **Nathan Vander Werf*** (vanderwerfnp@unk.edu).

Construction of families of logarithmic modules for vertex operator algebras given by kernels of screening operators in rank one and rank two lattices.

We give an explicit construction of the logarithmic modules for the triplet vertex operator algebra that is the kernel of a short screening operator for a rank one positive definite even lattice. Aspects of these modules were previously studied by Tsuchiya and Nagatomo as well as by Adamovic and Milas. Using this explicit construction in the rank one setting as motivation, we construct families of logarithmic modules for the vertex operator algebras that arise as the kernel, or intersection of kernels, of mutually orthogonal short screening operators in a rank two positive definite even lattice. (Received August 20, 2019)