1040-17-184 **Anliy N. N. Sargeant*** (anliyn@yahoo.com.br), Instituto de Matematica e Estatistica, Universidade de Sao Paulo, Sao Paulo, SP 05315-970, Brazil. *Verma type modules over an extended affine Lie algebra of type A_1.*

The extended affine TKK algebras belong to a class of Lie algebras called extended affine Lie algebras of type A_1. They are obtained from a semilattice on $\mathbb{R}^n$. We studied the structure of the Verma type modules for the extended affine TKK algebra obtained from a semilattice (non-lattice) on $\mathbb{R}^2$. Fixing a set of positive isotropic roots called standard we found four orbits of the Borel subalgebra each of which give distinct Verma modules for the extended affine TKK algebra. We studied the structures of their submodules and found a criteria for irreducibility for the classic and imaginary Verma modules. (Received February 12, 2008)