Twisted Γ-Vertex Operators

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Abstract. Let Γ be a generic subgroup of the multiplicative group $\mathbb{C}^*$ of non-zero complex numbers, we construct twisted Γ-vertex operators over even sublattice Q of $\mathbb{Z}^N$ equipped with a finite order isometry, which act on a generalized Fock spaces V. The moments operators of the vertex operators then give a unified realization of infinite dimensional Lie algebras, such as twisted affine Kac-Moody algebras of types A, D, trigonometric Lie algebras of series A and B, the extended affine Lie algebras of type A, some unitary Lie algebras and BC-graded Lie algebras. This is a joint work with Dr. Fulin Chen.