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Vertex Operator Algebras Associated to Type G Affine Lie Algebras.

The admissible representations of an affine Lie algebra are analogues of integrable representations at fractional integer levels. They were first introduced by Kac-Wakimoto in their study of modular invariant representations of affine Lie algebras. In this talk, we consider vertex operator algebras (VOA) associated with admissible modules for a type G affine Lie algebra at certain admissible one-third integer levels. We give formulas for the singular vectors and discuss how these are used to classify irreducible representations. In particular, we verify a conjecture of Adamovic and Milas which states that such VOA are “rational in the category \mathcal{O} ”. (Received June 28, 2011)