# Combinatorial bases of principal subspaces for affine Lie algebra of type $B_2^{(1)}$

(Talk)

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We consider principal subspaces $W_{L(k\Lambda_0)}$ of standard modules $L(k\Lambda_0)$ at level $k \geq 1$ for affine Lie algebra of the type $B_2^{(1)}$. By using the theory of vertex operator algebras we find combinatorial bases of principal subspaces in terms of quasi-particles, originally used by Feigin, Stoyanovsky and Georgiev for principal subspaces of affine Lie algebra of type $A_l^{(1)}$. From quasi-particle bases, we obtain character formulas for $W_{L(k\Lambda_0)}$. This short talk is part of Ph.D. dissertation.

MSC2010: 17B67, 17B69, 05A19.

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Section: Algebra.

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