

Rogers-Ramanujan type identities for level one affine symplectic Lie algebras

(Talk)

Tomislav Šikić

Faculty of Electrical Engineering and Computing

University of Zagreb

`tomislav.sikic@fer.hr`

(joint work with Mirko Primc, Faculty of Science, University of Zagreb)

In a joint work, A. Meurman and M. Primc constructed a combinatorial bases of integrable highest weight modules for affine Lie algebra $A_1^{(1)}$. In this construction they used vertex operator algebra theory and combinatorial arguments. A "representation theory part" of that construction has been extended to all affine Lie algebras, whereas the "combinatorial part" remained to be an open problem for general affine Lie algebras. In this talk I'll describe a solution of this combinatorial problem for level one $C_n^{(1)}$ -modules obtained in a joint work with Mirko Primc.

MSC2010: 17B67, 17B69, 05A19.

Keywords: Rogers-Ramanujan identities, affine Lie algebras, vertex algebras.

Section: Algebra.