

Combinatorial bases of some representations of symplectic Lie algebras

(Talk)

Mirko Primc
Faculty of Science, University of Zagreb
`primc@math.hr`

(joint work with Tomislav Šikić, Faculty of Electrical Engineering and Computing, University of Zagreb)

In this talk I'll describe a new kind of combinatorial bases of irreducible finite dimensional representations $L(m\omega_1)$ of symplectic Lie algebras for positive integer m . These combinatorial bases are used in a joint work with Tomislav Šikić in a proof of Rogers-Ramanujan type identities. I'll also discuss possible extensions of these results for other classical Lie algebras.

MSC2010: 17B67, 17B69, 05A19.

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

Section: Algebra.