Combinatorial bases of some representations of symplectic Lie algebras

(Talk)

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(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.

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Section: Algebra.