

Ideals in $U(\mathfrak{sl}_\infty)$ and Duflo's Theorem

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The theory of primitive ideals in $U(\mathfrak{sl}_n)$ (or more generally, in $U(\mathfrak{g})$ for a finite-dimensional semisimple Lie algebra \mathfrak{g}) has been built in important works of Dixmier, Duflo, Joseph and others. In this talk I will report on work of A. Zhilinskii, as well as on joint work of A. Petukhov and myself, on ideals in $U(\mathfrak{sl}_\infty)$. In particular, I will explain a somewhat unexpected analogue of Duflo's Theorem and will discuss the noetherianity of $U(\mathfrak{sl}_\infty)$.