

Cocharacters of $UT_n(E)$

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Let F be a field of characteristic 0 and let E be the infinite dimensional Grassmann algebra over F . In this talk, we give an algorithm calculating the generating function of the cocharacter sequence of the $n \times n$ upper triangular matrix algebra $UT_n(E)$ with entries in E , lying in a strip of a fixed size. Then, we compute the double Hilbert series $H(E; T_k, Y_l)$ of E and define the (k, l) -multiplicity series of any PI-algebra. As an application, we derive from $H(E; T_k, Y_l)$ an easy algorithm determining the (k, l) -multiplicity series of $UT_n(E)$.

This is a work joint with L. Centrone (Uniba-Italy) and V. Drensky (IMI-BAS).

References

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