

Algebra Seminar

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Perfect and semiperfect restricted enveloping algebras

Abstract:

Let R be a ring with unity and denote by $J(R)$ the Jacobson radical of R . We recall that R is said to be semiperfect if $R/J(R)$ is Artinian and idempotents of $R/J(R)$ can be lifted to R . Semiperfect rings, introduced by H. Bass, turn out to be a significant class of rings from the viewpoint of homological algebra and representation theory, since they are precisely the rings R for which all finitely generated left or right R -modules have a projective cover. Also, we recall that a ring R is called left perfect if all left R -modules have projective covers.

In this talk we shall consider $u(L)$, the restricted enveloping algebra of a restricted Lie algebra, and discuss when $u(L)$ is perfect or semiperfect. This is a joint work with Salvatore Siciliano.