1048-17-302

Brian D. Boe* (brian@math.uga.edu), Mathematics Department, University of Georgia, Athens, GA 30602, Daniel K. Nakano (nakano@math.uga.edu), Mathematics Department, University of Georgia, Athens, GA 30602, and Emilie Wiesner (ewiesner@ithaca.edu), Mathematics Department, Ithaca College, Ithaca, NY 14850. Ext¹-quivers for the Witt Algebra W(1,1).

Let \mathfrak{g} be the finite dimensional Witt algebra W(1, 1) over an algebraically closed field of characteristic $p \geq 5$. It is well known that all simple W(1, 1)-modules are finite dimensional. Each simple module admits a character $\chi \in \mathfrak{g}^*$. Given $\chi \in \mathfrak{g}^*$ one can form the (finite dimensional) reduced enveloping algebra $u(\mathfrak{g}, \chi)$. The simple modules for $u(\mathfrak{g}, \chi)$ are precisely those simple W(1, 1)-modules admitting the character χ . In this talk I will show how to compute Ext^1 between pairs of simple modules for $u(\mathfrak{g}, \chi)$. (Received February 10, 2009)