1117-17-124 Angelo Bianchi (acbianchi@unifesp.br), Tiago Macedo* (tmacedo@unifesp.br) and Adriano Moura (aamoura@ime.unicamp.br). Demazure and local Weyl modules for hyper current algebras.

A hyper algebra is a Hopf algebra associated to a Lie algebra, similar to its universal enveloping algebra, and obtained from it by first choosing a certain integral form and then changing scalars. They provide a way to pass from a category of modules for a Lie algebra over an algebraically closed field of characteristic zero to its analog in positive characteristic. When the underlying simple Lie algebra is simply laced, we show that local Weyl modules are isomorphic to certain Demazure modules, extending to positive characteristic a result due to Fourier and Littelmann. For other simple Lie algebras, we extend a result of Naoi by proving that local Weyl modules admit a filtration whose factors are isomorphic to Demazure modules. Using these results, we are able to confirm a conjecture of Jakelic and Moura, stating that the character of local Weyl modules for hyper loop algebras are independent of the (algebraically closed) ground field. (Received January 08, 2016)