

1039-16-134

Stefan Catoiu* (scatoiu@condor.depaul.edu), Department of Mathematics, DePaul University, 2320 N. Kenmore Avenue, Chicago, IL 60614. *Ideals of the enveloping algebra $U(\mathfrak{sl}_3)$* . Preliminary report.

The center of the enveloping algebra $U(\mathfrak{sl}_3)$ in characteristic zero is a polynomial in two indeterminates over the base field. We give presentations by generators of all prime ideals of U and of all ideals of U containing maximal central ideals. The same can be done for the quantized enveloping algebra $U_q(\mathfrak{sl}_3)$ at a generic q . There are many open questions in positive characteristic or when q is a root of unity, the restricted and quantum restricted cases, Kostant's Z -form and Lusztig's hyperalgebra. (Received March 10, 2008)