1146-16-447
Stefan Catoiu*, Department of Mathematics, DePaul University, 2320 N. Kenmore Avenue, Chicago, IL 60614, and Paul Terwilliger, Department of Mathematics, University of Wisconsin-Madison, 480 Lincoln Drive, Madison, WI 53706. New and Old Methods for Generating Ideals in Enveloping Algebras and Quantum Groups. Preliminary report.

We present four methods for generating ideals in enveloping algebras and quantum groups: (1) by highest weight elements relative to the adjoint action, introduced by the first author; (2) by homogeneous elements relative to the grading by the root lattice, introduced by V. V. Bavula for generalized Weyl algebras; (3) by writing the previous two expressions in terms of the equitable basis of G. Benkart and P. Terwilliger for the enveloping algebra; (4) by weight-equitable generators relative to the Chevalley basis. (Received January 28, 2019)