Victor Protsak* (vprotsak@math.ou.edu), Department of Mathematics, University of Oklahoma, Norman, OK 73019. *Minimal polynomials and elementary divisors for simple highest weight modules.* Preliminary report.

Let \mathfrak{g} be a classical Lie algebra and L a \mathfrak{g} -module. Then there is a family of invariants of L called (quantized) elementary divisors that generalizes Gould's notion of the minimal polynomial of L. We will present some computations of these invariants when L is a simple highest weight module and discuss a connection with Howe duality. (Received September 26, 2006)