Andrei Zelevinsky* (andrei@neu.edu), Department of Mathematics, Northeastern University, 360 Huntington Avenue, Boston, MA 02115. Triangular bases in acyclic quantum cluster algebras. Preliminary report.

In a joint work in progress with Arkady Berenstein, we introduce a new approach to the problem of constructing a “natural” linear basis in an acyclic quantum cluster algebra. This approach is based on a suitable modification of Lusztig’s lemma. Thus it is close in spirit to the well known-constructions of the Kazhdan-Lusztig basis in a Hecke algebra and of Lusztig’s canonical basis for quantum groups. (Received September 20, 2011)