Evgeny Mukhin*, 202 N. Blackford St, LD270, Department of Mathematics, IUPUI, Indianapolis, IN 46278. Deformed W-algebras.

We present a way to construct deformations of W-algebras associated to all classical series using the representation theory of quantum toroidal algebra of type gl(1). This uniform construction recovers all known examples and produces some new ones. Time permitting we will discuss the "local" integrals of motion for all such deformed W-algebras. This is a joint work with B. Feigin and M. Jimbo. (Received September 17, 2019)