

1154-81-2251 **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 $\mathfrak{gl}(1)$. 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)