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**Karl Schmidt\*** ([karls@uoregon.edu](mailto:karls@uoregon.edu)). *Factorizable Module Algebras.*

The aim of this talk is to introduce and study a large class of  $\mathfrak{g}$ -module algebras which we call factorizable, generalizing the Gauss factorization of (square or rectangular) matrices. This class includes appropriate localizations of coordinate algebras of corresponding reductive groups  $G$ , their parabolic subgroups, basic affine spaces, and many others. It turns out that tensor products of certain factorizable algebras are also factorizable. We also have quantum versions of all these constructions in the category of  $U_q(\mathfrak{g})$ -module algebras. Quite surprisingly, our quantum factorizable algebras are naturally acted on by the quantized enveloping algebra  $U_q(\mathfrak{g}^*)$  of the dual Lie bialgebra  $\mathfrak{g}^*$  of  $\mathfrak{g}$ . (Received September 26, 2017)