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Anne V. Shepler and **Sarah Witherspoon*** (sjw@math.tamu.edu). *Twisted tensor product algebras and resolutions.*

Twisted tensor products generalize tensor products of algebras, semi-direct products with groups, and crossed products with Hopf algebras. We will introduce twisted tensor products and give a general construction of projective resolutions of modules arising from a twisted tensor product of complexes. We will mention several recent applications, ranging from understanding algebraic deformations to determining finiteness properties of cohomology. (Received September 19, 2017)