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W. Frank Moore* (moorewf@wfu.edu), **Jason Gaddis** and **Ellen Kirkman**. *Tools For Computing Discriminants*. Preliminary report.

Recent work of Ceken, Palmieri, Wang and Zhang as well as Chan, Young and Zhang have shown that the discriminant of the algebra extension $A/Z(A)$ can be used to compute the automorphism group of some skew polynomial rings and quantum Weyl algebras.

In this preliminary report, we provide some tools to compute the discriminant of certain Ore extensions, skew group rings, and rings of invariants. Many of the computations were made possible by the NCAgebra package in Macaulay2, which will also be demonstrated. (Received September 22, 2015)