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Pavel Etingof and **Chelsea Walton*** (notlaw@math.mit.edu). *Semisimple Hopf actions on quantizations*. Preliminary report.

We study actions of semisimple Hopf algebras H on filtered deformations B of commutative domains such as algebras of differential operators on a smooth affine irreducible variety, universal enveloping algebras of a finite dimensional Lie algebra, symplectic reflection algebras, and quantized quiver varieties. We show that the action of H on B must factor through a group algebra, or in other words, if H acts inner faithfully on B , then H is cocommutative. The techniques used include reduction modulo p and the study of semisimple cosemisimple Hopf actions on division algebras. (Received August 01, 2014)