1108-16-276 **Pavel Etingof** and **Chelsea Walton***, Department of Mathematics, 77 Massachusetts Ave, Cambridge, MA 02139. *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.

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