1163-16-1534   **J T Hartwig*** (`jth@iastate.edu`). *Modules over orders in smash products.*

For an integral domain Λ with fraction field L, we study a class of noncommutative Λ-orders F in a smash product of L by a Hopf algebra. Specifically we give a sufficient condition for there to be only finitely many isoclasses of simple F-modules that are locally finite for Λ and are supported on a given maximal ideal of Λ. This generalizes a "finiteness of fibers" theorem of Futorny and Ovsienko for Galois orders. We point out some connections to Gelfand-Tsetlin theory for $\mathfrak{gl}_n$, Hopf Galois extensions, Cherednik algebras, and noncommutative Kleinian singularities. (Received September 15, 2020)