Hopf sheaves and affine extensions of abelian varieties

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We present a proposal of a representation theory for extensions of an Abelian variety A by a group scheme G affine over A. This is work in progress done jointly with Pedro Luis del Angel (Cimat/Mexico) and Alvaro Rittatore (Udelar/Uruguay). We aim to generalize in this way the classical theory of Tannaka Duality established for affine group schemes. In this talk we concentrate on the generalization to this context of the well-known equivalence between the categories of affine group schemes and commutative Hopf algebras.