

NONCOMMUTATIVE PRINCIPAL BUNDLES THROUGH TWIST DEFORMATION

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In the algebraic setting of noncommutative geometry, principal bundles are described via Hopf-Galois algebra extensions. The groups of symmetries of the bundle (structure group, groups of bundle automorphisms,...) are given by Hopf algebras. In this seminar I will talk about a joint work with P. Aschieri, P. Bieliavsky and A. Schenkel, in which we study deformation quantization of principal bundles via Drinfeld twists. A twist on the Hopf algebra of the structure group generates a bundle with twisted fibers. A twist on a group of bundle automorphisms generates a bundle with twisted base space. Examples will also be presented.