A HOMOTOPY THEORY FOR QUANTUM PRINCIPAL BUNDLES

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Hopf Galois extensions are noncommutative analogues of principal fibre bundles with structural group replaced by a Hopf algebra. I’ll discuss a concept of homotopy for Hopf Galois extensions and show how it allows a certain classification of such extensions. In particular, I’ll show how the Hopf Galois extensions over a Drinfeld-Jimbo quantum enveloping algebra can be completely classified up to homotopy (the latter is joint work with Hans-Jürgen Schneider).

References: