Abstract:

Since creation theory of Quantum Groups numerous attempts to elaborate an appropriate differential calculus were undertaken. Recently, a new type of Noncommutative Geometry has been obtained on this way. Namely, we have succeeded in introducing the notions of partial derivatives on the enveloping algebras \(U(gl(m))\) and constructing the corresponding de Rham complexes. All objects arising in our approach are deformations of their classical counterparts. In my talk I plan to introduce some basic notions of the theory of Quantum Groups and to exhibit possible applications of this type Noncommutative Geometry to quantization of certain dynamical models.