Quantum families of invertible maps and related problems
Adam Skalski and Piotr Sołtan

Abstract. The notion of families of quantum invertible maps (C*-algebra homomorphisms satisfying Podles’ condition) is employed to strengthen and reinterpret several results concerning universal quantum groups acting on finite quantum spaces. In particular Wang’s quantum automorphism groups are shown to be universal with respect to quantum families of invertible maps. Further the construction of the Hopf image of Banica and Bichon is phrased in the purely analytic language and employed to define the quantum subgroup generated by a family of quantum subgroups or more generally a family of quantum invertible maps.