# Free entropy dimension and the orthogonal free quantum groups

Roland Vergnioux
(Université de Caen)

After recalling the definition and some known properties of orthogonal free quantum group factors, I will review some past work about the first L2 Betti number and the free entropy dimension of their canonical generators. Then I will explain how the notion of strong 1-boundedness and some recent work by Jung and Shlyakhtenko, together with the study of quantum Cayley trees, potentially allow to prove that orthogonal free quantum group factors are not isomorphic to free group factors. This is an ongoing joint project with Michael Brannan.