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Modular invariants of compact quantum groups

A very interesting feature of compact quantum groups is that their Haar integral, which is a state on $L^\infty(G)$, can be non-tracial. Via Tomita-Takesaki theory, this gives rise to two groups of automorphisms: modular automorphisms and scaling automorphisms. One can use them to define a number of invariants, related to whether these automorphisms are trivial, inner or approximately inner. During the talk I will introduce such invariants and present their calculation in the case of q-deformed compact, simply connected, semisimple Lie groups Gq. The talk is based on a joint work with Piotr Sołtan.