

1136-46-182

Alexandru Chirvasitu* (achirvas@buffalo.edu). *Quantum isometries*. Preliminary report.

Compact quantum groups are the non-commutative geometer's version of a compact group, and their actions on geometric or algebraic objects capture extended notions of symmetry, generalizing the concept of a structure-preserving automorphism.

The talk will explain what it means for a compact quantum group action on a compact metric measure space to preserve the entirety of the structure (metric as well as measure-theoretic). The main result is then a reflection of the general intuition that most objects are not very symmetric: upon topologizing the set of isomorphism classes of metric measure spaces, it transpires that a "large" collection of them admit no symmetry, even when relaxing the notion of symmetry to allow for its quantum counterpart.

(partly joint w/ Martino Lupini, Laura Mančinska and David Roberson) (Received January 13, 2018)