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Alexandru Chirvasitu* (achirvas@buffalo.edu), 244 Mathematics Building, University at Buffalo, Buffalo, NY 14260, and **Benjamin Passer**. *On the (non)contractibility of compact quantum groups.*

It is a well known result in algebraic topology that compact topological groups cannot be contractible. We examine this same question in the context of compact quantum groups, i.e. particularly well-behaved non-commutative cosemisimple Hopf algebras mimicking the algebras of continuous functions on classical compact groups. The problem has natural links to topics familiar to geometric group theorists, such as the connection between C^* -algebraic K-theory and K-homology and the Baum-Connes conjecture, and the main result will be a non-contractibility statement in the very particular case when the compact quantum group is the Pontryagin dual of a discrete group meeting certain homological criteria.

(joint w/ Benjamin Passer) (Received September 05, 2020)