Noncommutative convex structures

The study of compact convex sets (in locally convex topological vector spaces) has a long history that has had deep connections with the foundations of functional analysis. For the purposes of operator theory, however, it is often necessary to consider new interpretations of convexity theory. The primary purpose of this talk is to discuss a new-found framework for noncommutative convex analysis, as well as showcase its applications to other disciplines.