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Title: Generalized Kitaev Pairings in coarse geometry

Abstract: In Appendix C of his "Anyons" paper, Kitaev introduced the notion of a "generalized Chern number" for a 2-dimensional system by dividing the system in three ordered parts and measuring a signed rotational flux. This construction has since been used by several authors to measure topological non-triviality of a physical system. In recent work with Guo Chuan Thiang, we observe that the recipe provided by Kitaev can be interpreted in coarse geometry as the pairing of a K-theory class with a coarse cohomology class. A corresponding index theorem then provides a proof that the set of values of this "Kitaev pairing" is always quantized, as already argued by Kitaev. In our work, we generalize Kitaev's definition and the corresponding quantization result to arbitrary dimensions.