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Title: The Spectrum of Groupoid C^* -algebras

Abstract: If G is a groupoid then the stabilizer group bundle associated to G is $S = \{\gamma : r(\gamma) = s(\gamma)\}$. When S has a Haar system and all of its fibres are abelian the Pontryagin duals of those fibres can be collected into a dual group bundle, \widehat{S} , which carries an action of G induced by conjugation. If the quotient space $G^{(0)}/G$ is at least T_0 then we can show that the spectrum of $C^*(G)$ is homeomorphic to \widehat{S}/G . This is related to a similar result for abelian transformation groups, (G, X) , which states that if X/G is T_0 then the spectrum of $C^*(G, X)$ is homeomorphic to a quotient of X .