

## An Introduction to Group and Groupoid C\*-algebras for Algebraists, Part I

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Abstract: Group C\*-algebras encode the unitary representation theory of a group within a C\*-algebra and allow one to use functional analysis to study groups. In this series of two talks, I will introduce the group C\*algebra construction using the group ring as motivation. I will discuss a generalization that allows one to construct the C\*-algebra of a groupoid (a group-like object where the operation is only partially defined). Groupoid C\*-algebras include graph C\*-algebras as special cases, and we will examine the graph groupoid that allows us to see this. I will assume no prerequisite knowledge of C\*-algebras, and I will frequently examine constructions in the discrete case to emphasize the algebra and avoid the analysis.

**Time and Place:** Wednesday, September 22 from 4:30–5:30PM (Mountain Time Zone) in ENGR 239



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