

# RECENT PROGRESS AND APPLICATIONS IN GROUP FFTS

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## Abstract

The Cooley-Tukey FFT can be interpreted as an algorithm for the efficient computation of the Fourier transform for finite cyclic groups, a compact group (the circle), or the non-compact group of the real line. These are all commutative instances of a “Group FFT.” We give a brief survey of some recent progress made in the direction of noncommutative generalizations and their applications.

**Keywords:** Fast Fourier transform, discrete Fourier transform, sampling, Gelfand-Tsetlin bases.