

The structure of the Fourier transform on the rotation algebra

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An attempt is made to solve Elliott's Fourier transform problem. That is, to show that the Fourier transform on the irrational rotation algebra is an inductive limit automorphism (with respect to invariant AT-algebras). A number of prerequisite subproblems are solved, while other remaining problems are discussed. A solution to this problem has as its corollary the approximate finite dimensional structure of the resulting fixed point subalgebra.