

AN ULTRAPOWER CONSTRUCTION OF THE MULTIPLIER ALGEBRA OF A C^* -ALGEBRA AND AN APPLICATION TO BOUNDARY AMENABILITY OF GROUPS

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ABSTRACT. Using ultrapowers of C^* -algebras, we provide a new construction of the multiplier algebra of a C^* -algebra. This extends the work of Avsec and Goldbring [Houston J. Math., to appear, arXiv:1610.09276] to the setting of noncommutative and nonseparable C^* -algebras. We also extend their work to give a new proof of the fact that groups acting transitively on locally finite trees with boundary amenable stabilizers are boundary amenable.

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