

BINARY SHIFTS AND COCYCLE CONJUGACY

ABSTRACT. A shift on a C^* -algebra \mathfrak{A} is a unital $*$ -homomorphism α on \mathfrak{A} with the property that the intersection of all of the ranges, $\bigcap_{n \in \mathbb{N}} \alpha^n(\mathfrak{A})$, consists only of scalar multiples of the identity. We define binary shifts on the CAR -algebra (canonical anticommutation relations), extend them to the hyperfinite II_1 algebra, \mathcal{R} , and discuss some recent results on the classification of binary shifts up to cocycle conjugacy. In particular we will show that for each $m \in \{\infty, 2, 3, \dots\}$ there are at least countably many cocycle conjugacy classes of binary shifts of commutant index m on \mathcal{R} .