1097-43-38 **Costel P Peligrad*** (peligrc@ucmail.uc.edu), University of Cincinnati, Department of Mathematical Sciences, P.O. Box 45221-0025, Cincinnati, OH 45221-0025. *Minimal and outer actions of compact groups on operator algebras.* Preliminary report.

Let $M$ be a von Neumann algebra and $\alpha$ an action of a compact group $G$ on $M$ . The action $\alpha$ is called minimal if it is faithful and the relative commutant of the fixed point algebra, $(M^\alpha)'\cap M$, is trivial. We study the relationship between the minimality of the dynamical system $(M, \alpha, G)$ and the outerness of the action and the dual co action. In case $M$ is a C* algebra, $\alpha$ is called minimal if the relative commutant of $M^\alpha$ in the algebra of local multipliers, $\mathcal{M}_{loc}(M)$ of $M$ is trivial. We describe several structural properties of the $w^*$-dynamical system that are equivalent to minimality and study the corresponding ones for the case of C*-dynamical systems. (Received December 23, 2013)