1070-47-203 **D. Drissi*** (drissi@sci.kuniv.edu.kw), Dept. of Mathematics, Kuwait University, P.O. Box 5969, safat 1306 Kuwait, Kuwait. *On m-idempotent operators and the invariant subspace problem.* Preliminary report.

We consider the resolvent algebra $R_A = \{T \in \mathcal{L}(\mathcal{X}) : \sup_{\Updownarrow \geq \prime} \|(\infty + \Updownarrow \mathcal{A})\mathcal{T}(\infty + \Updownarrow \mathcal{A})^{-\infty}\| < \infty\}$. It is shown that R_A possess non-trivial invariant subspaces when A is an m-idempotent operator. This assertion becomes stronger than the existence of a hyper-invariant subspace for R_A whenever $R_A \neq \{A\}'$. Using classical theorems on growth of analytic functions a complete characterization of the algebra R_A when A is an m-idempotent operator is given. (Received February 15, 2011)