1044-54-67 **Angelo Bella**, **Maddalena Bonanzinga**, **Mikhail V. Matveev** and **Vladimir V Tkachuk*** (vova@xanum.uam.mx), Departamento de Matematicas, Universidad Autonoma Metropolitana-Iztapalapa, Atlixco, 186, col. Vicentina, Mexico, D.F., 09340 Mexico, Mexico. *On a strengthening of separability.*

This is a joint work with A. Bella, M. Bonanzinga and M. Matveev. A space X is called selectively separable if, for any sequence $\{D_n : n \in \omega\}$ of dense subsets of X we can choose, for every $n \in \omega$, a finite set $A_n \subset D_n$ in such a way that $\bigcup\{A_n : n \in \omega\}$ is dense in X. It is not difficult to see that every space of countable π-weight is selectively separable while even countable spaces can fail to be selectively separable. We study this notion for general spaces with an essential emphasis on countable ones. We show, in particular, that it is independent of ZFC whether every dense countable subspace of $\{0,1\}^{\omega_1}$ is selectively separable; we characterize selective separability in $C_p(X)$ and show that it is consistent with ZFC that there exists a regular maximal countable space which is not selectively separable. (Received August 15, 2008)