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Jack B Brown, Zbigniew Piotrowski and Russell Waller* (rwaller@math.fsu.edu),
Department of Mathematics, Florida State University, Tallahassee, FL 32306. *Baire and weakly Namioka spaces.*

Recall that a Hausdorff space X is said to be *Namioka* if for every compact (Hausdorff) space Y and every metric space Z , every separately continuous function $f : X \times Y \rightarrow Z$ is continuous at each point of $D \times Y$ for some dense G_δ subset D of X . It is a well-known result of J. Saint-Raymond that in the class of all metric spaces, Namioka and Baire spaces coincide. Further it is known that every completely regular Namioka space is Baire and every separable Baire space is Namioka. We study spaces X , we call them *weakly Namioka*, for which the conclusion of Namioka theorem holds provided that the assumption of compactness of Y is replaced by *second countability of Y* . We will prove that in a class of all completely regular spaces, X is Baire if and only if it is weakly Namioka. (Received January 16, 2011)