

Meeting: 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-54-1333 **Istvan Juhasz** and **Andrzej Szymanski*** (andrzej.szymanski@sru.edu), Department of Mathematics, Slippery Rock University of Pennsylvania, Slippery Rock, PA 16057. *The Topological Version of Fodor's Theorem.*

Let X be a locally compact non-compact Hausdorff space such that any two closed non-compact (=cub) subsets of X intersect; call a subset S of X stationary if it meets every cub in X . Then for every neighborhood assignment U defined on a stationary set S there is a stationary set T contained in S such that the family $U(x):x \text{ in } T$ has non-empty intersection. Just like the "modern" proof of Fodor's theorem, our proof hinges on a notion of diagonal intersection of cub's, defined under some additional conditions. We also use these results to present (alas, only partial) generalization to the framework of Solovay's celebrated stationary set decomposition theorem. (Received October 04, 2004)