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Timothy O Trujillo* (timothy.trujillo@du.edu). *Selective and Ramsey for \mathcal{R}_1 Ultrafilters and Their Dedekind Cuts.*

Let \mathcal{V} be an ultrafilter on ω . To each function $p : \omega \rightarrow \omega$ and each ultrafilter \mathcal{U} mapped to \mathcal{V} by p , we associate a Dedekind cut in the ultrapower $\omega^\omega/\mathcal{V}$. Assuming CH, Andreas Blass has characterized the cuts obtainable in this manner when various restrictions are imposed on \mathcal{U} and p . In particular, the cuts obtainable when \mathcal{U} is a weakly-Ramsey ultrafilter have been characterized.

In this talk, we describe the topological Ramsey space \mathcal{R}_1 and then define the notions of selective for \mathcal{R}_1 ultrafilter and Ramsey for \mathcal{R}_1 ultrafilter. It is known that Ramsey for \mathcal{R}_1 ultrafilters are also weakly-Ramsey ultrafilters and any weakly-Ramsey ultrafilter generated by a subset of \mathcal{R}_1 is also a selective for \mathcal{R}_1 ultrafilter. The space \mathcal{R}_1 is equipped with a special function π whose restriction is neither constant nor one-to-one on any element of \mathcal{R}_1 . We characterize the cuts obtainable when \mathcal{U} is taken to be a Ramsey for \mathcal{R}_1 ultrafilter or a Selective for \mathcal{R}_1 ultrafilter and p is taken to be π . (Received February 19, 2013)