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Hurewicz spaces in the Laver model

Joint work with Dušan Repovš (Ljubljana)

A topological space X has the *Hurewicz property* if for every sequence $\langle \mathcal{U}_n : n \in \omega \rangle$ of open covers of X there exists a sequence $\langle \mathcal{V}_n : n \in \omega \rangle$ such that $\mathcal{V}_n \in [\mathcal{U}_n]^{<\omega}$, and $\{n \in \omega : x \notin \cup\mathcal{V}_n\}$ is finite for all $x \in X$. If we simply require that $\{\cup\mathcal{V}_n : n \in \omega\}$ is an open cover of X then we get the definition of the *Menger property*. In our talk we shall discuss the preservation of the Hurewicz property by products. In particular, we shall present the main ideas of the proof of the following

Theorem. *In the Laver model for the consistency of the Borel's conjecture, the product of any two Hurewicz spaces has the Menger property provided that it is a Lindelöf space. In particular, the product of any two Hurewicz metrizable spaces has the Menger property.*

[1] Repovš, D., Zdomskyy, L., *Products of Hurewicz spaces in the Laver model,* submitted. Available at http://www.logic.univie.ac.at/~lzdomsky/