On some relative versions of Menger and Hurewicz properties

Davide Giacopello[*1], *Maddalena Bonanzinga, Fortunato Maesano*

dagiacopello@unime.it,
maddalena.bonanzinga@unime.it,
fomaesano@unime.it

Let $\mathcal{U}$ be a cover of a space X and A be a subset of X; the star of A with respect to $\mathcal{U}$ is the set $st(A,\mathcal{U}) = \bigcup\{U : U \in \mathcal{U} \text{ and } U \cap A \neq \emptyset\}$. In this talk we consider some recent relative star versions of Menger property and the corresponding Hurewicz-type properties, introduced in [1]. We show that the considered properties are between countable compactness and the property of having countable extent and study the behavior with respect the product with a compact space. Among other things we answer to some recent questions posed in [1].

[1] L. Kočinac, S. Konca, and S. Singh, *Set star-menger and set strongly star-menger spaces*, Math. Slovaka, 72 (2022), pp. 185–196.

[1]The author was partially supported by the "National Group for Algebraic and Geometric Structures, and their Applications" (GNSAGA – INdAM).