Cammaroto, F.; Noiri, T.
On R-compact spaces. (English) [Zbl 0752.54007]

Let \( \mathcal{U} \) and \( \mathcal{V} \) be open covers of a space \( X \). \( \mathcal{V} \) is a shrinkable refinement of \( \mathcal{U} \) [the reviewer with M. P. Berri and R. M. Stephenson jun., Proc. Kanpur Topol. Conf. 1968, 93–114 (1971; Zbl 0235.54018)] if for each \( V \in \mathcal{V} \), there is a \( U \in \mathcal{U} \) such that \( \text{cl} \, V \subseteq U \). A space is \( U(i) \) or quasi-\( U \)-closed [C. T. Scarborough, Pac. J. Math. 27, 611–617 (1968; Zbl 0189.23104)] if every open cover with shrinkable refinement has a finite subfamily whose closures cover. The authors introduce the concept of \( R \)-compactness; a space is \( R \)-compact if every open cover with shrinkable refinement has a finite subcover. It follows that a quasi-\( H \)-closed space is \( R \)-compact and an \( R \)-compact space is quasi-\( U \)-closed. Many characterizations and some mapping results of \( R \)-compact are obtained.

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