

CLOSED HEREDITARY COREFLECTIVE SUBCATEGORIES IN CATEGORIES OF TYCHONOFF SPACES

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Let \mathbf{A} be an epireflective subcategory of \mathbf{Top} such that $\mathbf{ZD} \subseteq \mathbf{A} \subseteq \mathbf{Tych}$. We are interested in closed hereditary coreflective subcategories of \mathbf{A} . A trivial example is the subcategory of discrete spaces.

Let α be a regular cardinal. By $\mathbf{Top}(\alpha)$ we denote the subcategory consisting of such spaces X that the intersection of less than α open subsets of X is open in X . The subcategories $\mathbf{Top}(\alpha) \cap \mathbf{A}$ are closed hereditary and coreflective in \mathbf{A} .

Question 1 *Are there other closed hereditary coreflective subcategories in \mathbf{A} ?*

In the talk we answer this question under some set-theoretic assumptions.