

The Comparison of Some Hypertopologies

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Let (X, d) be a metric space and $\mathcal{Cl}(X)$ be the family of nonempty closed subsets of X . We consider some topologies on $\mathcal{Cl}(X)$ (called hypertopologies or hyperspatial topologies).

One problem which was studied is to compare two given hypertopologies defined on some family $\mathcal{A} \subset \mathcal{Cl}(X)$. Another important problem is to find some conditions on the space X in order to obtain the coincidence of two hyperspatial topologies. There is a vast literature in this sense on the Hausdorff, Attouch-Wets, Vietoris, Mosco, proximal or b-proximal topologies.

The aim of this work is to find the largest classes in $\mathcal{Cl}(X)$ on which different pairs of hypertopologies coincide.

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