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Hausdorff topology and uniform convergence topology in spaces of continuous functions

Abstract: The local coincidence of the Hausdorff topology and the uniform convergence topology on the hyperspace consisting of closed graphs of multivalued (or continuous) functions is related to the existence of continuous functions which fail to be uniformly continuous. The problem of the local coincidence of these topologies on $C(X, Y)$ is investigated for some classes of spaces: topological groups, zero-dimensional spaces, metric manifolds.

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