# On a strong generalized topology with respect to the outer Lebesgue measure

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The classical density topology is a topology generated by a lower density operator connected with a density point of a set. This topology has been studied by many mathematicians. Many generalizations of this topology, related to the generalizations of the concept of density points, are known. One of the possible generalizations of the concept of a density point is replacing the Lebesgue measure by the outer one. Unfortunately, it has turned out that the suitable family associated with such generalized density points is not a topology. However, in this case, one can prove that such a family is a strong generalized topology. A strong generalized topological space, introduced by Á. Császár, is a family $\mathcal{F}$ of subset of a nonempty set $X$ such that empty set and $X$ belong to the family $\mathcal{F}$ and the union of any subfamily of the family $\mathcal{F}$ belongs to $\mathcal{F}$.

During the talk some properties of a strong generalized topology connected with density points with respect to the outer Lebesgue measure will be presented. Moreover, among others, some characterizations of the families of meager sets and compact sets in such space will be given. The connection between continuous functions with respect to the above-describe topology and approximately continuous like functions connected with outer density points will be presented.

## Bibliography

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