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**SOME PROPERTIES OF $C(X)$ AND ITS LOCALIZATION AS A
TOPOLOGICAL ALGEBRA**

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ABSTRACT. Our purpose in this talk is to apply methods of commutative algebra to state topological properties of the \mathbb{R} -algebra " $C(X)$ " and some of its localizations. We propound that $C(X)$ must be considered as a locally m -convex algebra (endowed with the topology of uniform convergence of compact subsets, in brief, compact convergence topology). This talk consists of three parts. In part one we consider $C(X)$ as a topological algebra equipped with the topology of compact convergence. Part two is devoted to the introduction of the ring of germs and to the investigation of some properties of such rings. We also pose some questions related to this topic. In the last part we focus on some various definitions of dimensions in topological spaces.

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