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Section:

2. Algebra

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Some Algebraic Aspects of *C(X)*

Some Algebraic Aspects of *C(X)*

It is shown that X is an extremally disconnected space if and only if $C(X)$ is a Baer ring. We also give several new algebraic characterizations of basically disconnected spaces. These characterizations are then used to give a unified proof of the facts that X is extremally (basically) disconnected if and only if βX is extremally (basically) disconnected space. Zero-dimensional and strongly zero-dimensional spaces are also characterized similarly. It is shown that X is a strongly zero-dimensional F-space if and only if each minimal prime ideal in $C(X)$ is generated by idempotents.