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**A characterization of  $c$ -type subrings of  $C(X)$  of some kind.** (English) Zbl 1464.54015  
Positivity 24, No. 5, 1181-1190 (2020).

Summary: A commutative ring with unity is of a  $c$ -type if it is (ring) isomorphic with  $C(X)$  for some space  $X$ . In this paper, we have described a structural representation of  $c$ -type subrings of  $C(X)$  that separates points and contains the constant function 1, but not necessarily containing  $C^*(X)$ . It would be complete if all  $c$ -type subring of  $C(X)$  separate points and contains 1. But, we have produced an example of  $c$ -type ring which does not separate points. We have also produced an example of a subring of  $C(\mathbb{R})$  not containing  $C^*(\mathbb{R})$  which is of  $c$ -type,  $\mathbb{R}$  real line.

**MSC:**

- 54C40 Algebraic properties of function spaces in general topology
- 54H10 Topological representations of algebraic systems
- 46E25 Rings and algebras of continuous, differentiable or analytic functions
- 54E15 Uniform structures and generalizations
- 06A15 Galois correspondences, closure operators (in relation to ordered sets)

**Keywords:**

rings of continuous function;  $c$ -type rings; uniform structure; uniform completion; Galois correspondences

**Full Text:** [DOI](#)

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