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 C^ -points vs P -points and P^b -points*

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Abstract: In a Tychonoff space X , the point $p \in X$ is called a C^* -point if every real-valued continuous function on $C \setminus \{p\}$ can be extended continuously to p . Every point in an extremally disconnected space is a C^* -point. A classic example is the space $\mathbf{W}^* = \omega_1 + 1$ consisting of the countable ordinals together with ω_1 . The point ω_1 is known to be a C^* -point as well as a P -point. We supply a characterization of C^* -points in totally ordered spaces. The remainder of our time is aimed at studying when a point in a product space is a C^* -point. This process leads to many interesting new discoveries.

Keywords: ring of continuous functions; C^* -embedded; P -point

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