

Al-Omari, Ahmad**On ideal topological spaces via cozero sets.** (English) Zbl 1365.54002

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Summary: In this paper, we introduce and investigate z -local function and its properties in ideal topological space. A subset H of a space X is a zero set if there is a continuous real-valued $f : X \rightarrow \mathbb{R}$ with $H = f^{-1}(0)$, and $U \subseteq X$ is a cozero set if $X - U$ is a zero set.

We construct a topology τ_z^* for X by using the cozero sets and an ideal \mathcal{I} on X . Moreover, we obtain characterizations of z -compatibility of τ with \mathcal{I} via cozero sets.

MSC:**54A05** Topological spaces and generalizations (closure spaces, etc.)**54C10** Special maps on topological spaces (open, closed, perfect, etc.)**Keywords:**ideal topological space; Kuratowski closure operator; zero set; cozero set; z -local function