



MIXED CONNECTEDNESS VIA SHADOW SPACES

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Abstract

Shadow spaces are quotient spaces of A -spaces. They provide a better understanding to the concept of A -spaces using their corresponding posets. In this paper, we introduce and investigate new types of A -space called upper bounded and lower bounded A -spaces. Then we study connectedness and types of mixed connectedness. We prove that an A -space X is $i - j$ -connected iff its shadow space $[X]$ is $i - j$ -connected, for $i, j \in \{\alpha, P, S, SP, \gamma\}$.

Keywords and phrases: Alexandroff spaces, shadow spaces, generalized open sets, α -open sets, preopen sets, connectedness, mixed connectedness, preconnectedness, semi-connectedness, α -connectedness, β -connectedness.

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