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A note on monotone countable paracompactness

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Abstract: We show that a space is MCP (monotone countable paracompact) if and only if it has property $(*)$, introduced by Teng, Xia and Lin. The relationship between MCP and stratifiability is highlighted by a similar characterization of stratifiability. Using this result, we prove that MCP is preserved by both countably biquotient closed and peripherally countably compact closed mappings, from which it follows that both strongly Fréchet spaces and q-space closed images of MCP spaces are MCP. Some results on closed images of wN spaces are also noted.

Keywords: monotone countable paracompactness, MCP, monotone countable metacompactness, MCM, β-space, wN-space, g-functions, stratifiability, countably biquotient mapping, peripherally countably compact mapping, (quasi-)perfect mapping
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