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Spaces with countable sn -networks

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Abstract: In this paper, we prove that a space X is a sequentially-quotient π -image of a metric space if and only if X has a point-star sn -network consisting of cs^* -covers. By this result, we prove that a space X is a sequentially-quotient π -image of a separable metric space if and only if X has a countable sn -network, if and only if X is a sequentially-quotient compact image of a separable metric space; this answers a question raised by Shou Lin affirmatively. We also obtain some results on spaces with countable sn -networks.

Keywords: separable metric space, sequentially-quotient (π , compact) mapping, point-star sn -network, cs^* -cover

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