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VIOLATION OF COSMIC CENSORSHIP HYPOTHESIS IN HIGHER DIMENSIONAL MONOPOLE AND CHARGED-VAIDYA SPACE-TIME

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Abstract

In the present work, we analyze the gravitational collapse of higher-dimensional monopole-Vaidya space-time and also charged- Vaidya space-time. We show that singularities arising in monopole and charged null fluids in higher dimension are naked, violating cosmic censorship hypothesis (CCH). Further; we analyze strength of naked singularities arising in these space-times. It is found that naked singularities in monopole- Vaidya space-time as well as in charged- Vaidya space-time are strong.

Key Words : Higher dimension, Naked singularity, Cosmic censorship, Gravitational collapse, Strong curvature.

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