

# BOUNDS ON VOLUME GROWTH FOR GEODESIC BALLS OF STATIC VACUUM SPACE.

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ABSTRACT. We study the behavior of the matter at the event horizon, that is, the boundary of a black hole. Moreover, we provide an upper bound volume growth for geodesic balls of the base of vacuum static space similar to a classical result due to Bishop. In particular, we derive a weak version of the maximum principle of Omori-Yau at infinity for such spaces.

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