

A Ricci-type flow on globally null manifolds and its gradient estimates
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Locally, a screen integrable globally null manifold M splits through a Riemannian leaf $SBS M'$ of its screen distribution and a null curve C' tangent to its radical distribution. The leaf M' carries a lot of geometric information about M and, in fact, forms a basis for the study of expanding and non-expanding horizons in black hole theory. In the present paper, we introduce a Ricci-type flow in M' via the intrinsic Ricci tensor of M . Several new gradient estimates regarding the flow are proved.

Keywords: Screen integrable; Screen distribution; Null submanifolds; Ricci flow.