

Abstract Submitted
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Numerical Analysis of Black Hole Evaporation in the CGHS

Model FETHI M. RAMAZANOGLU, Physics Department, Princeton University, ABHAY ASHTEKAR, Institute for Gravitation and the Cosmos and Physics Department, The Pennsylvania State University, FRANS PRETORIUS, Physics Department, Princeton University — We numerically analyze the black hole formation and evaporation in the CGHS model, in the dynamical background of 1+1 dimensions. Specifically, we investigate the energy flux and the behavior of the asymptotic killing vector $\frac{\partial}{\partial y}$ at the future null infinity $\mathcal{I}_{\mathcal{R}}^+$, and their relation to the rate of change of the Bondi mass of the black hole. Emphasis is given to the rapid evolution of the space-time near the point where the last ray reaches $\mathcal{I}_{\mathcal{R}}^+$ and its implications about the information loss in this model.

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