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Black Hole Evaporation in (3+1)D: Numerical computation of the Bogolubov coefficients for a scalar field¹ RAYMOND CLARK, PAUL ANDERSON, Wake Forest University, MICHAEL GOOD, Nazarbayev University — Black hole evaporation is studied in the case of a 4-D nonrotating black hole that forms from the collapse of a null shell. Expressions for the exact Bogolubov coefficients for a massless minimally coupled scalar field are given and techniques used for their numerical computation are discussed. These coefficients will be used to compute the particle production which occurs during and after the collapse.

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