

Entropy of Dirac Field in Non-stationary and Slowly Changing Reissner-Nordström Black Hole

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(Received: 2005-2-28; Revised:)

Abstract: Using the thin film brick-wall model and WKB approximation, the entropy of the Dirac field in the non-stationary and slowly changing Reissner-Nordström (R-N) black hole is calculated. The result shows that the entropy of the R-N black hole is still proportional to its surface area if we choose proper cut-off.

PACS: 97.60.Lf, 04.70.Dy, 04.70.-s

Key words: slowly changing, thin brick-wall model, Dirac field, entropy of black hole

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