

Accepted Manuscript

A Black Hole with Quantum Core

Biplab Paik

PII: S0577-9073(18)30827-X
DOI: <https://doi.org/10.1016/j.cjph.2018.08.015>
Reference: CJPH 613



To appear in: *Chinese Journal of Physics*

Received date: 15 June 2018
Revised date: 29 July 2018
Accepted date: 20 August 2018

Please cite this article as: Biplab Paik, A Black Hole with Quantum Core, *Chinese Journal of Physics* (2018), doi: <https://doi.org/10.1016/j.cjph.2018.08.015>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlights

- A proposal of black hole geometry that conforms loop quantum cosmology.
- Quantum improved black hole holds a characteristic quantum core.
- Quantum core is regular, of radius $(MlP^2)^{1/3}$, packed with Planck-order-dense matter.
- Hawking radiation process gets a predictable final phase.
- Improved black hole entropy-area law carries a logarithmic quantum correction.

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/10142746>

Download Persian Version:

<https://daneshyari.com/article/10142746>

[Daneshyari.com](https://daneshyari.com)