Accepted Manuscript

On the mass and thermodynamics of the Higgs boson

A.S. Fokas, C.G. Vayenas, D.P. Grigoriou

PII: S0378-4371(17)31075-0
DOI: https://doi.org/10.1016/j.physa.2017.11.003
Reference: PHYSA 18771

To appear in: *Physica A*

Received date : 17 May 2017
Revised date : 23 October 2017

Please cite this article as: A.S. Fokas, C.G. Vayenas, D.P. Grigoriou, On the mass and thermodynamics of the Higgs boson, *Physica A* (2017), https://doi.org/10.1016/j.physa.2017.11.003

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.

ACCEPTED MANUSCRIPT

***Highlights (for review)**

Highlights

- The Higgs boson can be modeled as a relativistic rotational e^{+}-ν-e^{-}-$\overline{\nu}$ state
- The model geometry has a hybridized square structure with two rotational axes
- The gravitational Bohr type analysis uses SR and has no adjustable parameters
- The 125.7 GeV computed mass differs less than 0.5% from the experimental value
- Gravitational and Coulombic forces suffice to model hadrons and bosons
- Some basic thermodynamic properties of the $W^{\pm}$, Z^{o} and H^{o} bosons are compared

ACCEPTED MANUSCRIPT

Download English Version:

https://daneshyari.com/en/article/7376429

Download Persian Version:

https://daneshyari.com/article/7376429

Daneshyari.com