

1213

**ON A POSSIBLE EVALUATION OF THE ZERO POINT
CONTRIBUTION TO THE PLANCK DISTRIBUTION
BY THE SCATTERING OF LEP ELECTRONS OF
THERMAL RADIATION**

F.Cardone

Universita' "La Sapienza"
Dipartimento di Fisica e Sezione INFN
Piazzale Aldo Moro 2, I-00185 Roma, Italy
and
Division of Physics
The Institute for Basic Research
P.O.Box 1577, Palm Harbor, FL 34682 USA

Received February 6, 1990

Abstract

We analyze the measurement of high energy photons coming from an inverse Compton effect between the LEP electrons and the thermal radiation of the LEP tube. Within the framework of the stochastic model for the zero-point radiation in the Planck distribution, we evaluate a cut-off frequency of $1.61 \times 10^{-13} \text{ s}^{-1}$ (i.e., 0.066 eV) for a photon distribution at a temperature of 300 K. The proportion constant has been calculated according to the hypothesis of a cut-off following the Wien displacement law.