

Abstract Submitted
for the TSF13 Meeting of
The American Physical Society

Renormalization of QED Near Decoupling Temperature SAMINA

MASOOD, University of Houston-Clear Lake — We re-examine the renormalization of QED near decoupling temperature and show that the QED perturbative series is convergent, at temperatures, below the decoupling temperature. The renormalization constant of QED acquire different values, if a system cools down from a hotter system to the electron mass temperature or heats up from a cooler system to the same temperature. At $T=m$, the first order contribution to $((\delta m)/m)$ is 0.0076 for a heating system and 0.0115 for a cooling system and the difference between two values is equal to $1/3$ of the low temperature value and $1/2$ of the high temperature value at $T=m$.

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Date submitted: 04 Sep 2013

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