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M Khoshnevisan, J Phys Chem Biophys 2017, 7:3 (Suppl)
DOI: 10.4172/2161-0398-C1-022

2nd International Conference on

PHYSICS

August 28-30, 2017 Brussels, Belgium

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Discovery of a mathematical error in Albert Einstein's paper 1904 entitled "On the general molecular theory of heat" and calculating the new order of magnitude of the radiation wavelengths (black-body radiation)

I have recently discovered a mathematical error in Albert Einstein's derivation of equation $\sqrt[3]{v} = 2\left(\frac{\sqrt[3]{k}}{\sqrt[3]{c}}\right)\frac{1}{T}$ (Equation 28 in his paper, k and c are universal constants for ideal gas law and Stefan-Boltzmann law). Because of this mathematical error in the equation, his prediction of (0.420/T) for the order of magnitude of the radiation wavelengths is incorrect. I have derived the correct form of equation [28] given in his original 1904 paper, and calculated the new value for the order of magnitude of the radiation wavelengths as (0.263/T). This new value is based on the solution of the first order differential equation, $\int \frac{d\bar{\varepsilon}}{\bar{\varepsilon}^2}$ $(2k)=\int \frac{dT}{T^2}$ for the value of $\bar{\varepsilon}$. The correct value of the order of magnitude of the radiation wavelengths is 0.263/T. Correcting this mathematical error indeed shows that Einstein's prediction for the order of magnitude of the radiation wavelengths is more accurate than he thought during his life time.

Biography

M Khoshnevisan is an Associate Professor at Ajman University. He is a member of the American Physical Society. He was formally invited as a visiting scholar at the University of California-Berkeley and Harvard University during 2004-2005. He received the "Certificate of Achievement" in 2003 for his contribution to BISC FLINT-CIBI International Joint Workshop on Soft Computing for Internet and Bioinformatics from the World-renowned scientist and inventor of Fuzzy Logic, Professor Emeritus Lotfi A. Zadeh, at the University of California- Berkeley. His research interest is in Brownian motion, statistical physics, and general molecular theory of heat.

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