

Title: Variation of the speed of light with temperature of the expanding universe

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From an extended relativistic dynamics for a particle moving in a cosmic background field with temperature T, we aim to obtain the speed of light with an explicit dependence on the background temperature of the universe. Although finding the speed of light in the early universe much larger than its current value, our approach does not violate the postulate of special relativity. Moreover, it is shown that the high value of the speed of light in the early universe was drastically decreased before the beginning of the inflationary period. So we are led to conclude that the theory of varying speed of light should be questioned as a possible solution of the horizon problem.

Biography

The author has completed his PhD at the age of 31 years from São Paulo State University and postdoctoral studies from several institutes for Physics stidies in Brazil. He has published more than 12 papers in reputed journals.

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