

Abstract Submitted
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Classical Derivation of Planck's Radiation Law and Planck's Constant FERENC BOZSO, Retired / IBM T J Watson Research Center — Causal classical derivation of Planck's black-body radiation law is presented. A novel physical meaning of Planck's constant as Lorentz-invariant product of the energy and space-time interval of photons is introduced. It is shown that h can be derived, and its numerical value can be calculated from classical physical quantities, furthermore that the physical meaning and the numerical value of the fundamental quantum constants; quantum Hall impedance, magnetic flux quantum, and the fine structure constant can be derived and calculated from classical physical quantities.

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