

Classical «Quantization» of the Free Electromagnetic Field: a Puzzling Solution to Maxwell's Equations.

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PACS 03.50 – Classical field theory.

PACS 03.70 – Theory of quantized fields.

PACS 13.60.Fz – Elastic and Compton scattering.

PACS 99.10. – Errata.

On page 27 in system (8.2) the third equation

$$E_z = E_0 \left[\sin m(x - ct) + \frac{1}{2} \sin 2m(x - ct) \right] \left[\sin ny + \frac{1}{2} \sin 2ny \right] [\cos pz + \cos 2pz]$$

should read

$$E_z = E_1 \left[\sin m(x - ct) + \frac{1}{2} \sin 2m(x - ct) \right] \left[\sin ny + \frac{1}{2} \sin 2ny \right] [\cos pz + \cos 2pz].$$

On page 28, 2nd line from top, the sentence «... each similar to the last of the system of eqs (2.3) ...» should read instead «... each similar to the first of the system of eqs. (2.4) ...».

Moreover, on the same page, eq. (8.3)

$$\begin{aligned} \rho = & - \frac{E_0}{4\pi} \left[\sin m(x - ct) \frac{1}{2} + \sin 2m(x - ct) \right] \left\{ (n \sin ny + 2 \sin 2ny) \cdot \right. \\ & \cdot \left(\sin pz + \frac{1}{2} \sin 2pz \right) + \frac{p^2}{n} \left(\sin ny + \frac{1}{2} \sin 2ny \right) \left(\sin pz + \frac{1}{2} \sin 2pz \right) \left. \right\} \end{aligned}$$

should read

$$\begin{aligned} \rho = & - \frac{E_0}{4\pi} \left[\sin m(x - ct) + \frac{1}{2} \sin 2m(x - ct) \right] \left\{ (n \sin ny + 2 \sin 2ny) \cdot \right. \\ & \cdot \left(\sin pz + \frac{1}{2} \sin 2pz \right) + \frac{p^2}{n} \left(\sin ny + \frac{1}{2} \sin 2ny \right) \left(\sin pz + \frac{1}{2} \sin 2pz \right) \left. \right\}. \end{aligned}$$

On page 29, 2nd line from top, the comma should be omitted between «on» and «a» in the sentence «... or no spot at all on, a point of the recording screen, ...».

Finally, on the same page, the second equation of system (8.7),

$$E_z = -E_0(\sin \gamma) \text{ ses} - E_0(\cos \gamma) \text{ sse}$$

should read

$$E_z = E_0(\sin \gamma) \text{ ses} - E_0(\cos \gamma) \text{ sse.}$$