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How to Recover Causality for Tachyons Even in Macrophysics.

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In this paper we considered *in particular* a macro-object B, with rest-mass $M \equiv M_B$ and 3-momentum $\boldsymbol{P}$, moving with (subluminal) speed in the positive x-direction and absorbing tachyons, with rest-mass $m \equiv m_0$ and 3-momentum $\boldsymbol{p}$, moving along the positive x-axis as well. From the four-momentum conservation law in the case when M does not change during the absorption, we *correctly* derived eq. (2). In the case, however, when we have a *nonzero* $\Delta \equiv M'^2 - M^2$, then eq. (2 bis) was trivially miscalculated. It should rather read

$$(2\text{ bis}) \qquad 2M^2|\boldsymbol{p}| = (m^2 + \Delta)\,|\boldsymbol{P}| + E\sqrt{(m^2 + \Delta)^2 + 4m^2 M^2}\,, \qquad E \equiv \sqrt{\boldsymbol{P}^2 + M^2}\,.$$

(Notice that the present Δ was called Δ^2, since in this paper we assumed $\Delta > 0$.)

Notice, however, that *the physical conclusions—and actually the whole paper—remain totally unchanged.* Even fig. 5 still holds, since the physics was not affected at all by that miscalculation.

Let us take advantage of the present occasion for repeating that—as already [1] remarked—lines 14 and 15 (and the first eight words of line 16) ought to be eliminated at page 178.

For further details about the subjects of this paper, see for instance ref. [1,2].

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(1) E. RECAMI: *Lett. Nuovo Cimento*, **21**, 208 (1978), and to appear.

(2) P. CALDIROLA and E. RECAMI: to appear in *Boston Studies in the Philosophy of Sciences*, edited by R. S. COHEN and M. DALLA CHIARA (Dordrecht); E. RECAMI: *Lett. Nuovo Cimento*, **18**, 501 (1977); E. RECAMI, Editor: *Tachyons, Monopoles, and Related Topics* (Amsterdam, 1978). See also V. DE SABBATA, M. PAVŠIČ and E. RECAMI: *Lett. Nuovo Cimento*, **19**, 441 (1977).