## **ROBERT M. LEWIS**

## **Correction to my Paper**

## "Asymptotic Theory of Wave Propagation"

Archive for Rational Mechanics & Analysis, 20, 191-250 (1965).

It is incorrectly stated that for anisotropic media the speed of energy transport, which is the same as the group speed g, is not bounded by the speed of light, c. The incorrect statement, which appears at the end of the abstract and at the end of Section 6, is incidental to the theory developed and therefore the error does not affect the validity of the theory.

The correct result can be obtained from equations (11), (12), (13) of Section 6.3. For an *arbitrary* unit vector A,

$$|\mathbf{A} \cdot \mathbf{G}| = (\mathbf{r}, a_{\mathbf{v}} A^{\mathbf{v}} \mathbf{r})| \leq v_{\max}(\mathbf{r}, A\mathbf{r}) \leq v_{\max}(\mathbf{r}, A^{\mathbf{0}} \mathbf{r}) = v_{\max}.$$
 (1)

Here  $v_{\text{max}}$  is the maximum root of det $(a_v A^v - vA) = 0$  and depends on A. If we now choose A in the direction of the group velocity vector G, (1) yields

$$g = |G| \le v_{\max}. \tag{2}$$

For MAXWELL's equations  $v_{max}$  is independent of A and equals c. Thus

$$g \leq c.$$
 (3)

Courant Institute of Mathematical Sciences New York City

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