

Addendum to
“Discontinuity relations for charged, compressible,
relativistic fluids”

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DARMOIS [13] and LICHNEROWICZ [1] derived (6.46) when $\Phi < 0$; ABRAHAM ([18], University of Michigan Ph. D. Thesis, 1960) extended (6.46) to the case when $\Phi > 0$. The fact that the vector B_i of (8.1) is a gradient vector was called to the author's attention by Professor A. H. TAUB. Further, the inequality in (8.3), (8.8) is valid for strong shocks. This is an additional principle and cannot be derived from (2.17) and conversely. Again, in section 10, we have used the term “non-inductive fluid” in its usual sense, that is, when $\epsilon\mu \neq 1$ but terms multiplied by $(1 - \epsilon\mu)$ are neglected. ABRAHAM [18] determined the wave speeds of characteristics in the case of self-inductive fluids with finite conductivity, continuous current, and ϵ, μ variable. He found that the permissible wave speed is the relativistic equivalent of the Newtonian local sound speed plus terms involving $(1 - \epsilon\mu)$ as a factor. Finally, the author wishes to thank G. L. SAINI for his comments on the manuscript.