

⁸In order to simplify the discussion we do not formulate the most general assumptions from which the following properties can be derived (Ref. 5) (not all of them are independent). For the purpose of this note, the properties (1)–(4) may be regarded as the assumptions which define our framework.

⁹A very clear and rigorous discussion of the Gupta-Bleuler formulation in the free-field case is given in A. S. Wightman and L. Gårding, *Arkiv Fysik* **28**, 129 (1964). The proof that, under very general assumptions, locality and covariance require a Gupta-Bleuler-type formulation can be found in F. Strocchi, *Phys. Rev.* **162**, 1429 (1967); *Phys. Rev. D* **2**, 2334 (1970); in *Lectures in Theoretical Physics*, edited by A. O. Barut and W. E. Brittin (Colorado Associated Univ. Press, Boulder, to be published), Vol. 14. There, one may also find a characterization of the local and/or covariant gauges for the free-field case. The interacting case is discussed in Ref. 5.

¹⁰The Maxwell equations cannot hold as operator equations, not even in the weak form

$$[\partial_\mu F^{\mu\nu}(f) - j^\nu(f)]\Psi = 0, \quad \forall \Psi \in \mathcal{H} \cap D_{\alpha\nu}(f).$$

The best one can require is that the Maxwell equations hold as mean values in \mathcal{H}' (Refs. 4, 5).

¹¹The spectral condition holds in \tilde{D}_0 , by assumption (4).

¹²The conclusions of the theorem can be extended to higher (non-zero-charge) sectors under the following conditions: (i) the spectral condition holds in α , (ii) for a dense set of vectors $\Psi \in \mathcal{H}'$ one may find strictly local operators α_n , depending on Ψ , such that

$$(a) \quad \text{weak limit}_{n \rightarrow \infty} \alpha_n \Psi_0 = \Psi,$$

$$(b) \quad \text{weak limit}_{n \rightarrow \infty} \alpha_n \Psi = \bar{\Psi} \in \mathcal{H}'.$$

A sequence α_n fulfilling (a) always exists by the Reeh-Schlieder theorem. The nontrivial part of condition (ii) is (b), although this is suggested to be true by soluble models. It may be worthwhile to note that even if the theorem can be extended to charged sectors, this does not necessarily imply the vanishing of the three-point function or vertex which enters in the Ward identity.

Errata

Equal-Time Terms in Perturbation Theory and Convolutions of Tempered Distributions, Paul Otter-son [*Phys. Rev. D* **4**, 1681 (1971)]. The reference to tables in the third paragraph of the Introduction is a misprint. The tables are in Ref. 5 (Gel'fand and Shilov, Vol. I.) and Ref. 18.

In several cases the mass function $M^2(p_B, p_\gamma, \alpha)$ of Eq. (14) takes negative as well as positive values; in specific examples it has been verified that this function may be replaced by its absolute value

in Eq. (16).

In Sec. II, the space C_∞ should be replaced by the space of infinitely differentiable functions polynomially bounded together with all derivatives.

Tachyons and Quantum Statistics, Raymond Fox [*Phys. Rev. D* **5**, 329 (1972)]. Page 329, Column 1, line 29: Instead of "Other reasons against the existence..." it should read, "Reasons for the possible existence...".