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Triviality of the light-front vacuum and zero modes

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We use algebraic methods to reconcile the triviality of the vacuum in
different light-front field theories with the inequivalence of vacuua
in different canonical theories. We show how the inequivalence arises by extending the vacuum functional
from the light-font Fock algebra to
the algebra of local observables. This extension leads to an
identification of a sub-algebra of the light-front Fock algebra where
it is possible to realize Poincar\'e invariance and define local
observables. While zero modes play no role in the structure of this
sub algebra, they may be needed to treat local operator products,
which are in this algebra.

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