

Abstract Submitted
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Electrostatic Fields without Excess Charges JAMES ESPINOSA,
JAMES C. ESPINOSA, Weatherford College — One of the reasons that physicists
in the late nineteenth century rejected using action at a distance in electromagnetism
is the prediction of electrostatic fields produced by neutral currents. We will revisit
this result and show that there is no experimental evidence to support this criticism.
The theory of Walter Ritz will be used to calculate the force on a stationary charge
a fixed distance from a neutral wire. The possibility of using this result to construct
a classical model of the electron will also be explored.

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