

Abstract Submitted  
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**Applying Ampere's Force Law to Jacob's Ladder** BASEL HAMAD,  
JAMES ESPINOSA, Weatherford College — Jacob's ladder can be seen in many  
physics departments. The classical upward motion of the plasma arc is usually  
explained by the buoyant force of the heated air around the arc. We will review  
Ampere's force law and apply it to this demonstration experiment. Our results in-  
dicate that this almost forgotten 19th century physical law gives a good explanation  
of the Jacob's ladder.

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