Abstract Submitted
for the APR21 Meeting of
The American Physical Society

A Newtonian Solution of the Feynman Disk Paradox MICHAEL ESPINOSA, DR. JAMES C. ESPINOSA, Weatherford College — One of the reasons that the concept of fields was introduced by Faraday and Maxwell was to envision momentum and energy being propagated from point to point. In A Treatise on Electricity and Magnetism, Maxwell gives the analogy of information being transmitted to a passenger on a ship with the use of ocean waves or messages attached to projectiles. In static situations, it is harder for beginning students to see how the electromagnetic field can carry momentum. In the early 1960's, Feynman gave students a paradox that helped undergraduates envision the need of momentum flow in a charged disk that begins to turn when an attached solenoid has its current terminated. In the literature, it appears that many physicists are confused by this apparent paradox. We will show that fields are unnecessary for the resolution of this thought experiment.

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Date submitted: 31 Dec 2020 Electronic form version 1.4