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Where, this investigation extended the classical RTI model in refs. (12, 13). Here the surface of discontinuity ( $z=0$ ) has considered between infinitely conducting quantum plasma in the half-space  $z<0$  and a vacuum in the other half-space  $z>0$ , that has been permeated by a uniform horizontal magnetic field ( $\vec{B}_0 = B_0 \vec{e}_x$ ). Here, we use a system of Cartesian coordinates, where  $z$ -axis in the vertical direction. A gravitational acceleration  $\vec{g} = (0, 0, g)$  directed from the quantum plasma towards the vacuum. In all the above studies (19-22), the perturbation was very slow. So, the higher derivatives that rise in the system considerable are neglected. In our analysis the perturbation will be superabundant (high-speed), such that the system cannot return to the initial case (i. e. The system will remain in a permanent disturbance case). Thus all the terms, which will rise in the linearized equations, will be considered.

Finally, the method that used in this investigations is the nonlinear Fourier perturbation and elaborated by Callebaut (as ref. 24)