

Abstract Submitted
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The solar coronal electron heating by short wavelength electromagnetic modes PADMA SHUKLA, Institut für Theoretische Physik IV, ROBERT BINGHAM, STFC/RAL, LENNART STENFLO, University of Umeå, B. ELIASSON, Institut für Theoretische Physik IV — The electron heating of the solar coronal plasma has remained as one of the most important problems in solar physics. An explanation of the electron heating rests on the identification of the energy source and appropriate physical mechanisms via which the energy can be channelled to the electrons. Our objective here is to present an estimate for the electron heat in grate in the presence of finite amplitude short wavelength in comparison with the ion gyroradius dispersive electromagnetic (SWDEM) waves that propagate obliquely to the magnetic field in the solar corona, Specifically, it is demonstrated that the SWDEM waves can significantly contribute to the solar coronal electron heating via Joule heating involving electron-SWEDEM wave interactions. .

R. Bingham
STFC/RAL

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