

# MHD WAVE PROPAGATION INTO THE LOWER ATMOSPHERE

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Magneto-hydrodynamic wave modes propagating from the solar photosphere into the corona have the potential to be exploited as an observational tool in an analogous way to the use of acoustic waves in helio/terrestrial seismology. In regions of strong magnetic field photospheric p-modes are thought to undergo mode conversion to slow magneto-acoustic waves, and that these slow-magnetoacoustic p-modes may be waveguided from the photosphere into the solar corona along the magnetic field. Observations are presented of the propagation of these waves and their channelling into the coronal parts of magnetic loops within active regions. A statistical analysis technique is applied which gives new insights into the coupling and propagation of these waves within the solar atmosphere.