



## **Disturbances on space borne accelerometers and the behavior of metal shields in a dilute plasma**

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Electromagnetic waves in a plasma have a unique propagation behavior as the free electrons and ions react on the electric field of the wave. In the dispersion relation distinct resonances and cut-off frequencies occur depending on the magnetic field strength and plasma density. We focus in our discussion on very low frequencies which propagate in the whistler mode. We will discuss why these frequencies disturb the accelerometer and why metals may not shield these frequencies. We review the observed disturbances on GRACE and GOCE and show how they can be related to very low frequencies in a plasma.