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Solar wind temperature anisotropy during the Ulysses Spacecraft first polar pass

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Anisotropy is a property of turbulence in solar wind plasma in which velocity and magnetic fields fluctuate along and perpendicular to the ambient magnetic field. Recent in situ measurements confirmed that the solar wind in the inner heliosphere exhibits a temperature anisotropy. The presence of this anisotropy results in magnetohydrodynamic (MHD) waves and instabilities. In this report, we analyze the proton temperature anisotropy using data from the Ulysses spacecraft during its first latitude scan. Radial and latitudinal variations of temperature anisotropy for Fire-hose and Mirror instabilities are discussed.

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