

**Intermediate Wave Pulses in the Outbound Upstream Region
of Comet p/Halley**

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The outbound upstream region of comet p/Halley is characterized by short lived transverse perturbations of the interplanetary magnetic field. These predominantly intermediate wave pulses have typical durations of about 100 s and amplitudes of about 6-8 nT in a background field of about 8 nT. Thus they are classified as nonlinear wave effects. The nonlinear character is also exhibited in the wave form with the initial deflection of the field lasting for about 60-80 s, while returning to the unperturbed direction takes about 20-30 s. Hodograms indicate that the total magnetic field vector is almost moving along a semi-circle that is only a partial rotation is observed. The steep edge is observed both as the leading and the trailing print of the pulse.

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