

Abstract Submitted  
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**Whistler propagation in nonuniform magnetic fields**<sup>1</sup> J.M. URRUTIA, R.L. STENZEL, Physics & Astronomy, UCLA — The propagation of whistler waves when the magnetic field presents gradients comparable or smaller to the plane wavelength has been studied. Such a magnetic field occurs when a Helmholtz coil is immersed in a uniform background magnetic field, leading to magnetic null regions and islands as well as closed field lines. Whistler wavepackets have been launched in three distinct regions of this magnetic configuration and detailed maps of their propagation been obtained in situ. The packets are observed to be trapped on closed field lines where they propagate as Gendrin modes. In contrast, when the packets are launched against the null regions, they are observed to propagate around the nulls. Hence, the oblique nature of whistlers is very evident as they travel in non-uniform field regions.

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Reiner Stenzel  
Physics & Astronomy, UCLA

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