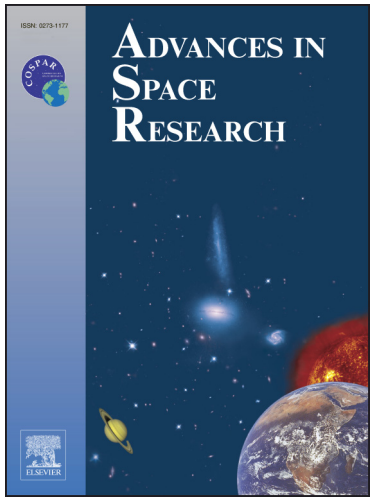

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PII: S0273-1177(16)30152-1
DOI: http://dx.doi.org/10.1016/j.asr.2016.04.017
Reference: JASR 12702

To appear in: *Advances in Space Research*

Received Date: 1 June 2015
Revised Date: 29 March 2016
Accepted Date: 20 April 2016

Please cite this article as: Valdivia, J.A., Toledo, B.A., Gallo, N., Muñoz, V., Rogan, J., Stepanova, M., Moya, P.S., Navarro, R.E., Viñas, A., Araneda, J., López, R.A., Díaz, M., Magnetic Fluctuations in Anisotropic Space Plasmas: the effect of the plasma environment, *Advances in Space Research* (2016), doi: http://dx.doi.org/10.1016/j.asr.2016.04.017

Magnetic Fluctuations in Anisotropic Space Plasmas: the effect of the plasma environment

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Abstract

The observations in the solar wind, which are usually organized in a beta-anisotropy diagram, seem to be constrained by linear instability thresholds. Unexpectedly, under these quasi-stable conditions, there is a finite level of electromagnetic fluctuations. A relevant component of these fluctuations can be understood in terms of the electromagnetic fields produced by the thermal motion of the charged particles. For the simple case of parallel propagating fields in an electron-proton plasma, we study the effect of the parameter ω_{pp}/Ω_c that characterizes the different space physics environments, and can affect the continuum spectrum produced by these fluctuations, which in turn may be used to understand the relevance of these processes occurring in a specific plasma environment.

Keywords: thermally induced electromagnetic fluctuations

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