Title: Lower Hybrid Waves in Space Plasmas

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Abstract:

Lower hybrid waves are the waves that are generated in plasma at frequencies between the ion and electron gyro frequencies. These waves are generated due to lower hybrid drift instability which is excited due to density gradients. In the Earth magnetosphere, these waves are generally observed in the boundary layer regions. It is believed that these waves are responsible for plasma heating and particle acceleration in the Earth's magnetosphere. In this talk, I will discuss the basic characteristics of lower hybrid waves in the Earth's magnetosphere in space plasmas.

References-

[1] Graham et al., 2019, Universality of lower hybrid waves at earth's magnetopause. Journal of Geophysical Research: Space Physics, 124(11):8727{8760.

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[3] Hsia et al., 1979 Generalized lower-hybrid-drift instability. Physics of Fluids, 22(9):1737.