

## **Abstract**

Oscillating two-stream instability (OTSI) in a magnetized electron-ion plasma has been thoroughly studied, e.g., in ionospheric heating experiments [C. S. Liu and V. K. Tripathi, *Interaction of Electromagnetic Waves With Electron Beams and Plasmas* (World Scientific, 1994); V. K. Tripathi and P. V. Siva Rama Prasad, *J. Plasma Phys.* 41, 13 (1989); K. Ramachandran and V. K. Tripathi, *IEEE Trans. Plasma Sci.* 25, 423 (1997)]. In this paper, OTSI is investigated in a magnetized electron-positron-ion plasma. The dispersion relation of the process is established. The pump field threshold, along with the maximum growth rate of the instability is assessed using the Arecibo and HAARP parameters.