

Abstract Submitted
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Effect of RF Waves on Ionospheric Fluctuations¹ S SEN, College of William Mary, VA; National Institute of Aerospace, VA Bowie State University, MD, J MARTINELL, Instituto de Ciencias Nucleares - UNAM, Mexico — It is demonstrated that the ponderomotive force of the rf waves can stabilize many low-frequency modes in the ionosphere. The underlying physics of this stabilization mechanism is identified and is found to be rather general in the sense that all potential drift-like instabilities are expected to be affected in a similar way. It is also shown that this stabilization can be achieved for rather modest values of the rf power. Applications of this finding to ionospheric fluctuation will be discussed.

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