

Excitation of Alfven vortices in the ionospheric Alfven resonator

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A review is given of the problem of Alfven vortex excitation in the ionospheric Alfven resonator (IAR) by the magnetospheric convection. The linear theory of the feedback instability in the IAR is summarized. Mechanisms of Alfven wave saturation and of wave energy sink are discussed. Possible ways of external initiation of the feedback instability are considered.