

## **Regimes and characteristics of ELF/VLF chorus emissions and their relationships with plasma parameters observed by CLUSTER satellites**

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We discuss whistler-mode chorus emissions, detected onboard CLUSTER satellites inside the generation region during strong geomagnetic disturbances. Characteristics of chorus elements, i.e., the amplitudes, the time intervals between chorus elements, the frequency sweep rate and other, were obtained for several satellites passes. Relationships between these chorus characteristics, variations of electron flux and magnetic field are revealed. For example, decreasing of the electron flux is accompanied by decreasing of the chorus amplitudes and increasing of average time intervals between the chorus elements. Regimes of chorus generation are found to be dependent on the plasma parameters in the generation region. We demonstrate transferring of chaotic regime of chorus emissions into quasi-periodic regime during decrease of the electron flux. The observed features of chorus emissions are reasonably well explained by the backward wave oscillator regime of the chorus generation. Possible dynamical analogues of the observed generation regimes are discussed.