Correlation between magnetic storm and chorus emission in the vicinity of outer radiation belt.

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We analyzed the relationship between magnetic storm and chorus emission using VLF wave data observed by Akebono in order to verify an acceleration mechanism of high energy electrons in the outer radiation belt by VLF waves. Correlation analysis between Dst index and VLF wave amplitude clarified that chorus emissions are enhanced in the recovery phase of magnetic storm. Wave normal vector of chorus emission was determined by wave distribution function method with Gaussian distribution model. It is found that chorus emission propagates in the meridian plane with its wave normal close to the resonance angle, and can be resonate with high energy electrons in the energy range around 1.6 MeV in the outer radiation belt.