

## Responses of Jovian radio emissions to solar wind: approaches for remote monitoring of Jovian magnetosphere

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Jovian rotational energies and plasma from Io's volcanoes have been considered as main energy/mass sources for the Jovian magnetospheric activities. Some latest observations, however, provide pictures that solar wind fluctuations have large influence on Jovian magnetospheric activities, e.g. auroral emissions, plasma torus, or radio emissions (e.g., Nozawa et al., 2006; Gurnett et al., 2002).

In this study, responses of several Jovian radio components to the solar wind fluctuations around the Jovian orbit were examined based on radio and solar wind data observed by the Ulysses and Galileo spacecraft, and we discuss whether these radio emissions can be used for proxies of the magnetospheric activities. Each radio component (e.g., HOM, nKOM, bKOM, QP burst) indicated different responses with respect to the solar wind fluctuations. This suggests that magnetospheric regions corresponding to each radio component (e.g., polar cap region-QP radio bursts) are activated in different processes possibly related to the solar wind.