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Could Saturn's magnetosphere behave as Jupiter's

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A remarkable feature of dynamics in the jovian magnetosphere is the existence of repetitive 'energetic events' corresponding to global increases of the radio flux of the planet, in different frequency domains, with a quasi-period of a few days (Louarn et al, 1998). They are associated with various magnetospheric manifestations as bursts of energetic particles, large magnetic fluctuations and sequences of plasma loading of the magnetosdisk (Louarn et al, 2000).
Observations made during the second half of 2006 by the RPWS Cassini experiment strongly suggest that similar phenomena also occur in the Saturn's magnetosphere. Over a total period of several months, several examples of global increases in the SKR, for periods of 20-30 hours, followed by emissions of narrowband radiation in the 2-20 kHz range are reported. Each 'event' presents the same typology, similar in many respects to the one of the jovian 'energetic events'. This suggests that, in some respects, the saturnian and jovian magnetospheric activity present strong similarities, most likely due to the fact that both are fast rotating systems with internal sources of plasma.