



Statistical investigation of the VLF quasi-periodic emissions measured by the DEMETER spacecraft

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We present a survey of quasi-periodic (QP) ELF/VLF emissions detected on board the DEMETER satellite (altitude of about 700 km, nearly Sun-synchronous orbit at 10:30/22:30 LT). Five years of data have been visually inspected for the presence of QP emissions. It is found that QP events occur in about 3 percents of daytime half-orbits, while they are basically absent during the night (note that we were likely to miss QP events with the modulation periods lower than about 10 s or the frequency bandwidth lower than about 400 Hz). The events occur predominantly during quiet geomagnetic conditions following the periods of enhanced geomagnetic activity. Their occurrence and properties are systematically analyzed.