

Occurrence characteristics of the 'broad-band wave phenomena' detected by the Akebono satellite

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When Akebono satellite is located in the altitude range from 500 to 5000[km], wave phenomena which have a wide frequency band(15[kHz] - 5.1[MHz]) are observed. It is statistically shown that (1) the phenomena tend to occur when the satellite is in the night side of northern hemisphere, (2) the altitude of the phenomena becomes lower as the satellite approaches the polar region, and (3) the half-shadow region of the earth is closely related to the occurrence of the phenomena. Moreover, the wave is received with clear spin modulation. This means that the wave comes from specific direction or the wave is excited when the satellite turns to a specific direction.