

Plasma waves causing 20 Hz intensity modulation of pulsating aurora

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We observed ~20 Hz intensity modulation of pulsating aurora at Syowa Station by high-speed camera pointing at magnetic zenith for a few min time interval, 30 min after the aurora breakup occurred on September 22, 2018. The footprints of the Arase satellite was located within the all-sky field of view at that time, and ~20 Hz intensity modulation was observed in the intensity of the lower band chorus waves. We present the possible correlations between the plasma waves and pulsating aurora in more detail, and examine the resonant energy quantitatively.

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