Observations of high-frequency pulsating aurora at Spitsbergen

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On the base of TV and magnetic pulsations data recorded at Barensburg (Spitsbergen) and Lovozero, with using advanced data processing procedures, some fine and new details of high latitude auroral activity were revealed. We found several examples of high-frequency regular auroral pulsations (period is 4-10 seconds). Pulsations have unusually stable period and on the filtered TV frames looked as a very weak diffuse luminosity bands, periodically moving from south to the north with a speed 200-300 km/sec.
FFT and Wavelet analyze of magnetic pulsations revealed weak magnetic effect of optical pulsations at Barensburg, but not at Lovozero, so these pulsations are the high-latitude phenomena.