SuperDARN observations of pulsating aurora

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On 25 September 2006 the all-sky camera located in Tjornes, Iceland observed pulsating aurora. During the event, the SuperDARN radar at Pykkvibaer was running in a high time, high spatial resolution mode and observed oscillating Doppler velocities. The pulsating velocities were observed in two separate patches of backscatter at different range gates, with different velocities. Backscattered power and spectral width as well as elevation angle data suggest that the power associated with each patch travelled along different ray paths. We discuss possible ray paths as well as the mechanisms that could have led to the difference in Doppler velocity observed for each patch.