

Supporting Information for the paper “Narrow width Farley-Buneman spectra under strong electric field conditions”

Jean-Pierre St-Maurice^{1,3}, Devin Huyghebaert⁴, Magnus F. Ivarsen^{1,2}, , and

Glenn C. Hussey¹

¹Department of Physics and Engineering Physics, University of Saskatchewan, Saskatoon, Saskatchewan, Canada

²Department of Physics, University of Oslo, Oslo, Norway

³Department of Physics and Astronomy, University of Western Ontario, London, Ontario, Canada

⁴Department of Physics and Technology, UiT The Arctic University of Norway, Norway

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Additional Supporting Information (Files uploaded separately)

1. Captions for Movies S1 and S2

Introduction

The present material provides the reader with context for the measurements presented in the main article. The first video (Movie S1) displays data obtained from the Ionospheric Continuous-wave E-region Bistatic Experimental Auroral Radar (ICEBEAR) plotted in a range-Doppler grid with the color representing the Signal-to-Noise-Ratio (SNR). The time resolution of the measurements is 5 seconds. There are multiple instances of relatively fast Doppler velocity spectra, where a theoretical interpretation for the occurrence of these

fast narrow spectra is provided in the manuscript. In the second video (movie S2), the data is mapped to the ICEBEAR field-of-view using azimuthal and range information.

Movie S1. Movie showing the range and Doppler shift evolution of ICEBEAR spectra with a 5 s time resolution. The movie was recorded over the time period 3:00-4:00 UT on March 10, 2018. To convert the Doppler shift to an approximate velocity one can multiply by 3.03 m (half-wavelength of the ICEBEAR 49.5 MHz radar operating frequency).

Movie S2. Movie showing the evolution of ICEBEAR measurements mapped to the radar field-of-view with a time resolution of 5 seconds over the time period of 3:00-4:00 UT on March 10, 2018. The azimuthal information from the linear ICEBEAR interferometer (pre-ICEBEAR 3D) were used to map the coherent scatter.