



## **Electron line Incoherent Scatter Spectrum VHF radar Observations and modeling.**

B. Gustavsson (1), I. Häggström (2), and A. Senior ()

(1) University of Southampton, School of Physics and Astronomy, Southampton, UK, (2) EISCAT Scientific Association, Kiruna, Sweden, [ingemar@eiscat.se](mailto:ingemar@eiscat.se), (3) Lancaster University, Dept of Physics, Lancaster, UK,

In addition to the ion-line and plasma-line signatures one can also observe the truly incoherent scattered signal from individual electrons with the EISCAT VHF radar. In this presentation we show that this spectrum, that covers the frequency range between  $\pm 3$  MHz, makes it possible to get a measure of the photo-electron spectrum at energies up to 50-100 eV. Comparisons between observations and theoretical spectra is shown, with reasonable agreements.