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Dust character footprint in high resolution radar and imager meteor observations

A. Pellinen-Wannberg

Swedish Institute of Space Physics, Kiruna, Sweden (asta@irf.se)

Many meteoroid/dust parameters have been routinely estimated from optical and meteor radar data, such as mass, speed, origin, etc. Recent very high time and spatial resolution observations and use of optical filters has brought in further parameters. Features like fluctuating or suddenly breaking up meteors can give a clue of the structure or composition of the initial meteoroid. Through narrow filters corresponding to chosen spectral lines, presence of elements and even molecules can be identified. What kind of dust parameters and how they can be identified will be discussed. Examples of data and results from EISCAT HPLA (High Power Large Aperture) radars and ALIS (Auroral Large Imaging System) imagers will be presented.