

Meteor echo observations using various atmospheric radars

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Strong coherent echoes are received from meteor trails when using middle frequency to VHF radio waves. Conventional meteor radars mostly employ a low VHF frequency and their performance has been improved very much due to recent advanced radio and signal processing techniques. On the other hand, non-meteor radars operated in MF to VHF bands often receive significant number of meteor echoes although those meteor echoes are mostly discarded as spike noises.

National Institute of Polar Research, Japan, has an MF radar and two SuperDARN HF radars at Syowa station (69N) for the observations of mesosphere winds and F-region plasma convection, respectively. We re-designed the on-line data processing softwares of those radars so that routine meteor echo observations are now possible without deteriorating their originally aimed observations.