Advanced Meteor Wind Observations Using MST Radars

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MST radars in the VHF band have a great potential in meteor echo observations due to its high transmitting power. The meteor measurement can be conducted throughout a day and compensate the turbulent echo measurement in the mesosphere, which is limited to day light hours only. The MU radar of Kyoto University is one of those radars and has been successfully applied to meteor studies by utilizing its very high versatilities. The MU radar was recently renewed. Its signal processing system is up-graded from a 4 analog receiver system to a 25 digital receiver system. In the present study we try to improve the MU radar meteor measurement technique by fully utilizing the new function. It is further planned to apply the technique to the Antarctic Syowa MST/IS radar, which is currently under feasibility studies.