

“Turbulence and precipitation classification based on Doppler-polarimetric radar data”, pp. 57-60

Yaroslav P. Ostrovsky, Felix J. Yanovsky and Hermann Rohling

Abstract – This paper describes a methodology of precipitation and turbulence classification based on radar echo signal features measured by polarimetric radar. Estimation of turbulence parameters on the basis of Doppler spectrum width is used, but additionally some new polarimetric parameters and averaged velocity features are integrated into the classification procedure. After a detailed echo-signal analysis, a fuzzy logic classification procedure is applied. The classification procedure makes a decision about the type of both precipitation and turbulence intensity.