

# **DSD profiles estimated from the EAR and an L-band wind profiler in Indonesia**

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Raindrop size distribution (DSD) is the most fundamental rainfall parameter, which is the basis of radar rainfall measurement. In this paper, vertical DSD profiles are estimated from combination of the EAR (Equatorial Atmosphere Radar) and an L-band wind profiler observations in Indonesia. We can detect two distinct echoes, one from the clear-air turbulence and the other from hydrometeors using the VHF Doppler radar in case of rather heavy rainfall. An L-band wind profiler is sensitive to hydrometeors, however, the turbulence echo becomes weaker than hydrometeors in case of heavy rainfall. DSD parameters are estimated from the combination of hydrometeor echo by an L-band wind profiler and the vertical wind information obtained by the EAR. Estimated DSD profiles are compared in several tropospheric conditions.