An Improved Algorithm for Radar-Derived Classification of Convective and Stratiform Precipitation

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The algorithm for classification of convective and stratiform precipitation using scanning precipitation radar reflectivity echoes from Steiner et al. (1995) is impr.oved. Instead of requiring an interpolated reflectivity field as input, the new algorithm uses data from the lowest elevation angle in its native radial and azimuthal resolution. While the algorithm fails where beam blockage is present, it provides highly resolved maps of convective regions embedded with larger stratiform echoes. A new shallow and weak convection scheme is included. It improves detection of small convective elements that may otherwise be classified as stratiform using the old algorithm. Thus, the algorithm improves the ratio of convective to stratiform rainfall detected during periods for which mostly shallow convection is present. Sample results using the S-PolKa (Addu) and TOGA (*Revelle*) radars are shown.