Wang, D., S. Yue, X. Gu, S. Chen, S. Zhang, Y. Qian, J. Tao, and Z. Qian, 2025: Microphysical Characteristics of Warm-Season Precipitation in Eastern Coastal China. *J. Meteor. Soc. Japan*, **103**, http://doi:10.2151/jmsj.2025-024.

.

Plain Language Summary: This study examines warm-season rainfall in Ningbo, eastern coastal China, using data from the Parsivel disdrometer. It compares raindrop size distributions (DSD) across different rain types and regions. The findings show that convective rainfall, accounting for 67% of total precipitation, is dominated by large, low-concentration raindrops. Both rain types follow a unimodal distribution, and the Z-R relationship for convective rain is defined as $Z = 396.96R^{1.34}$. These insights help improve regional weather models and radar-based precipitation estimates.

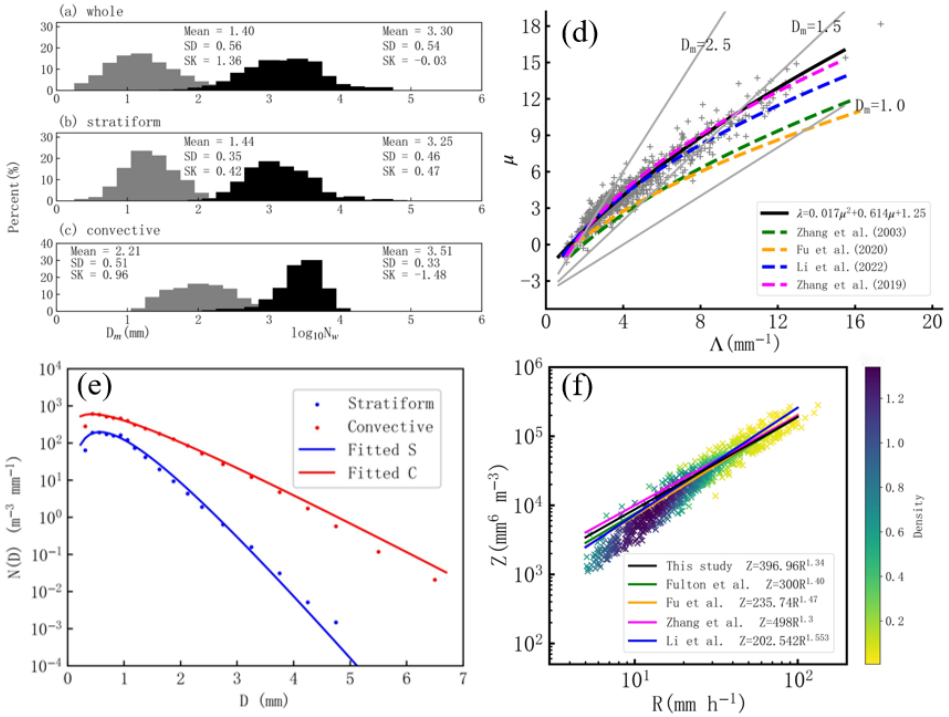

Figure 1. Histogram distribution and related statistical parameters of D_m (gray) and $\log_{10}N_w$ (black) for different rainfall types: (a) whole rainfall, (b) stratiform rainfall, and (c) convective rainfall. (d) μ-Λ relationship. (e) Composite raindrop spectra for convective (red) and stratiform (blue) rainfall. (f) Z-R scatter plot for coastal eastern China.

- The average DSDs across the entire dataset shows the lowest concentration of the largest-sized drops when juxtaposed with statistical results from other parts of China.
- The DSDs for both convective and stratiform rain generally follow a three-parameter Gamma distribution. The shape-slope (μ-Λ) relationship in this coastal region is similar to that of southern coastal China, with large raindrops dominating the distribution.
- The Z-R relationship for warm-season convective precipitation is described by $Z = 396.96R^{1.34}$, which is critical for improving radar-based quantitative precipitation estimates.