Zeng, Y., L. Yang, Y. Zhou, Z. Tong, Y. Jiang, 2022: Statistical Characteristics of Summer Season Raindrop Size Distribution in the Western and Central Tianshan Mountains in China. *J. Meteor. Soc. Japan*, **100**, 855-872.
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**Plain Language Summary:** This study focused on DSD variability in two different regions (Urumqi and Nilek) of the Tianshan Mountains in China. Parsivel$^2$, ERA5, and FY-2G datasets were used to analyze and understand the DSD variability between Urumqi and Nilek. DSD variability was attributed to topographic difference between Urumqi and Nilek. By comparing DSDs of two different regions, we have got some interesting conclusions, such as DSDs in Nilek had larger $D_m$ and smaller $N_w$ as compared to that in Urumqi.

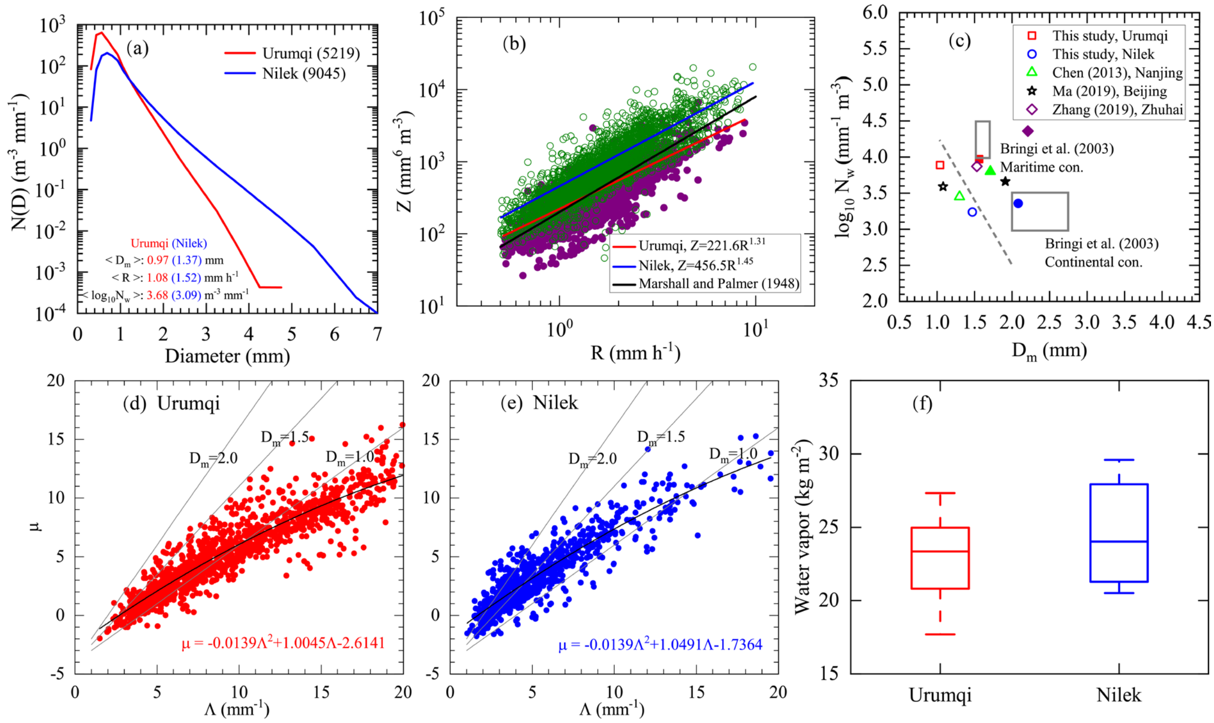


Figure 1. (a) Mean raindrop concentrations in Urumqi and Nilek during summer. (b) *Z*-*R* relations for stratiform rainfall in Urumqi and Nilek. (c) Scatterplots of the mean $\log_{10}N_w$ versus $D_m$ for convective rainfall and stratiform rainfall. Relations of the shape and slope in Urumqi (d) and Nilek (e). (f) Box and whisker plots of vertical integral of water vapor in Urumqi and Nilek.

- Characteristics of raindrop size distribution (DSD) in summer in the western (Nilek) and central (Urumqi) regions in the Tianshan Mountains of China were studied based on three years of second-generation OTT Particle Size Velocity (Parsivel$^2$) disdrometer data.
- The radar reflectivity, rain rate relations, and the shape and slope relations for rainfall in Urumqi and Nilek were obviously different. Convective clusters in Urumqi were similar to maritime clusters, whereas convective clusters in Nilek were more like continental clusters.
- The DSD variability in the two regions may be attributed to differences in convective intensity that are closely related to the specific terrain of the Tianshan Mountains.