Long, J., Y. Wang, and S. Zhang, 2018: Intercomparison of cloud amount datasets in the Kuroshio region over the East China Sea. *J. Meteor. Soc. Japan*, **96**, 127-145. https://doi.org/10.2151/jmsj.2018-018

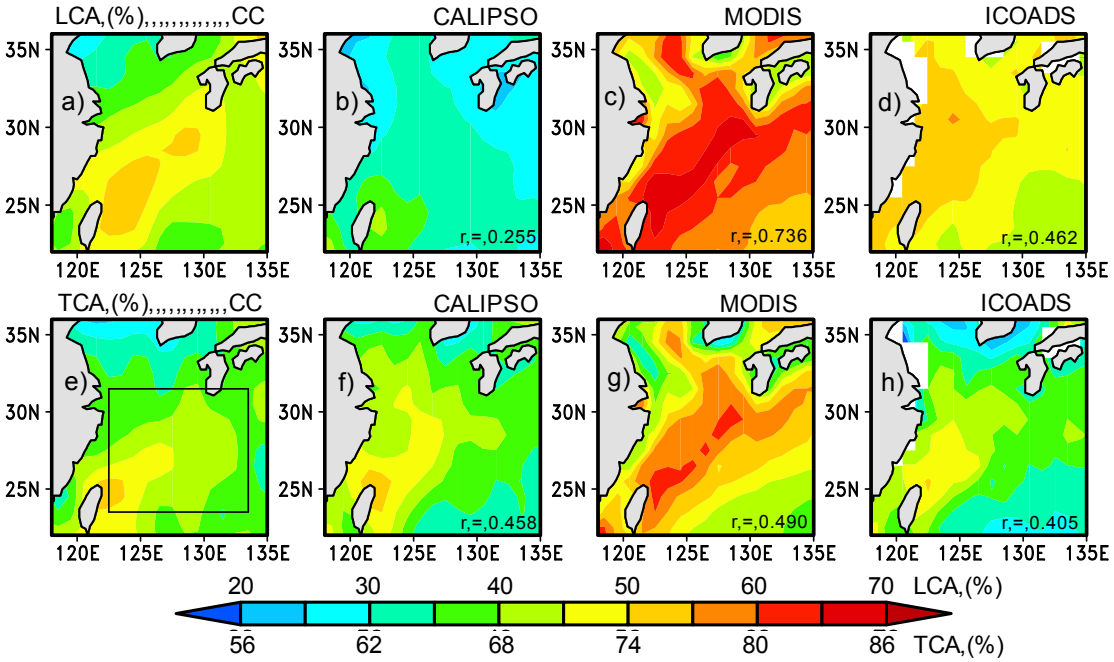

Figure 1 The climatological annual mean low cloud amount (LCA, a–d) and total cloud amount (TCA, e–h) derived from CloudSat+CALIPSO (CC, a and e), CALIPSO (b and f), MODIS (c and g) and ICOADS (d and h), respectively. Black rectangle area in (e) is the Kuroshio region in the East China Sea.

The monthly low cloud amount (LCA) and total cloud amount (TCA) datasets in the Kuroshio region over the East China Sea in CALIPSO, MODIS and ICOADS are validated against the combined product of CloudSat+CALIPSO (CC) in terms of the consistency and discrepancy on climatologically mean, seasonal cycle, and interannual variation. The major findings are summarized below:

- LCA and TCA derived from MODIS and CALIPSO present considerable consistency with CC data in climatological annual mean and show similar behavior in seasonal cycle. The consistency in LCA between the three datasets and the CC is generally good in cold seasons (winter, spring and autumn) but poor in summer.
- MODIS shows the best agreement with CC in autumn with correlation coefficient of 0.77 at the confidence level over 99%.
- CALIPSO and MODIS can provide competitive description of TCA in all seasons while ICOADS is good in terms of climatological seasonal mean TCA in winter only.
- The interannual variation of LCA and TCA from all datasets is highly correlated with that from CC in winter and spring with the Matching Score (MS) ranging between 2/3 and 1. Further analysis with long-term data suggests that both LCA and TCA from ICOADS and MODIS can be good references for studies of cloud interannual variability.