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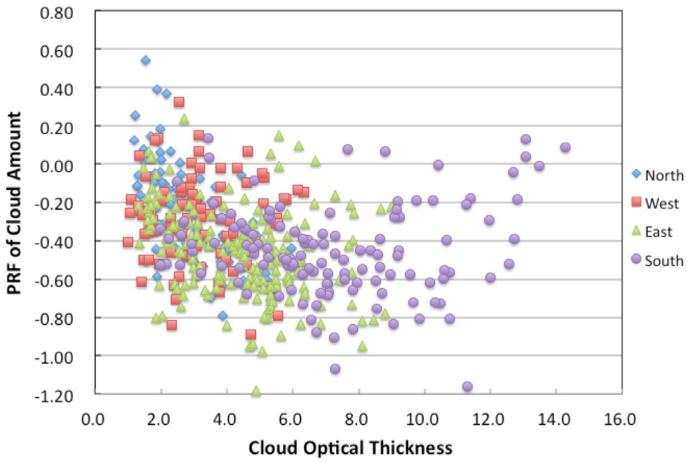

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Figure 1. The relationship between cloud optical thickness and the normalized PRF (Potential Radiative Forcing) of cloud amount in four regions in China.

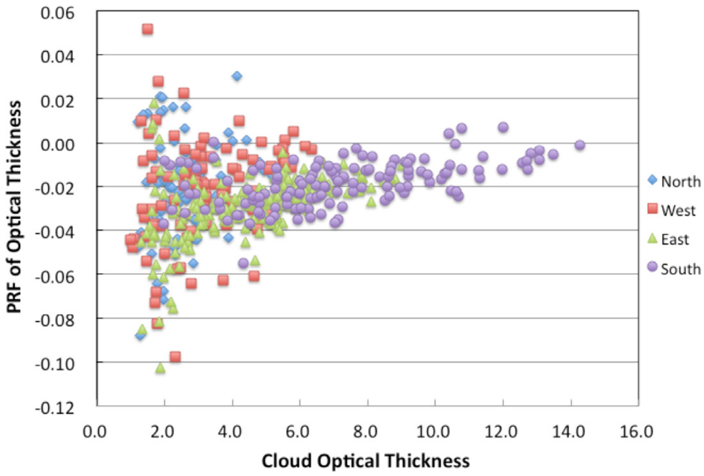

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Figure 2. The relationship between cloud optical thickness and the normalized PRF (Potential Radiative Forcing) of cloud optical thickness in four regions in China.

- The negative correlation between PRF (Potential Radiative Forcing) of cloud amount and cloud optical thickness became stronger with increasing cloud optical thickness up to about 8, and became weaker beyond this optical thickness (Fig. 1). In contrast, the correlation coefficient between cloud optical thickness and its PRF exhibited large variation for small optical thickness and converged to a small negative value with increasing optical thickness; this occurred particularly in the South and East regions (Fig. 2).
- The physical values of the PRF of cloud amount and cloud optical thickness obtained from observed data analysis were consistent with those calculated from ISCCP data, although the PRF of cloud amount in the present study was slightly larger for negative values than the previous calculations. This confirmed that PRFs are useful for evaluation of cloud effects on the surface shortwave irradiance.