



## **The vertical structure of atmospheric cloud radiative forcing at the SGP ARM site as revealed by 8 years of continuous data**

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Vertically profiling active remote sensors combined with other measurements reveal a wealth of information regarding the radiative influence of clouds on the atmosphere. We have presented a methodology for deriving the cloud radiative forcing profile with uncertainty in non-precipitating overcast conditions using continuous ground-based measurements, and we have compared these results to similar quantities derived from satellite and surface data. Using one year of data collected at the SGP site, we find that the lower troposphere is generally cooled radiatively by boundary layer clouds while clouds tend to cause net heating of the upper troposphere on an annual average. We extend these results in this paper and examine the seasonal and interannual variability of the vertical profile of cloud radiative forcing at the SGP ARM site as derived from 8 years of ground-based measurements.