

Selected Publications of Quanhua (Mark) Liu

- Liu, Q.**, G. Yu, and J. Liu, 2009: Solar Radiation as Large-Scale Resource for Energy-Short World, *Energy & Environment*, **20**, No. 3, 319-329.
- Liu, Q.**, M. Miao, J. Liu, W. Yang, 2009: Solar and wind energy resources and prediction, *J. Renewable and Sustainable Energy*, **1**, 043105,1-12 (<http://jrse.aip.org/>).
- Liu, Q.**, and F. Weng, 2009: Radiative Cooling Effect of Hurricane Florence in 2006 and Precipitation of Typhoon Matsa in 2005, *Atmos. Sci. Lett.*, **10**, 122-126.
- Liu, Q.**, and F. Weng, 2009: Recent stratospheric temperature observed from satellite measurements, *SOLA*, **5**, 53-56, doi:10.2151/sola.2009-014.
- Ding, S., Y. Xie, F. Weng, **Q. Liu**, B. Baum, Y. Hu, 2009: Estimates of radiation over clouds and dust aerosols: Optimized number of terms in phase function expansion, *J. Q. S. SPECTROSCOPY & RADIATIVE TRANSFER*, **110**, 1190-1198, doi:10.1016/j.jqsrt.2009.03.032.
- Liu, Q.**, X. Liang, Y. Han, P. van Delst, Y. Chen, A. Ignatov, and F. Weng, 2009: Effect of out-of-band response in NOAA-16 AVHRR channel 3b on top-of-atmosphere radiances calculated with the community radiative transfer model, JTECH, in press.
- Hong, G., P. Yang, B. A. Baum, A. J. Heymsfield, F. Weng, **Q. Liu**, G. Heygster, S. A. Buehler, 2009: Scattering database in the millimeter and submillimeter wave range of 100-1000 GHz for non-spherical ice particles, *J. Geophys. Res.*, **114**, D06201, doi:10.1029/2008JD010451.
- Dong, P., F. Weng, **Q. Liu**, and J. Xue, 2009: Deriving infrared land surface emissivity from the special sensor microwave imager/sounder, *Int.. J. Remote Sensing*, **30**, 2021 – 2031.
- Mo, T., and **Q. Liu**, 2008: A Study of AMSU-A Measurement of Brightness Temperatures Over Ocean, *JGR-Atmosphere*, **113**, D17120, doi:10.1029/2008JD009784.
- Liu, Q.**, Y. Han, and F. Weng, 2008: Conversion Issues between Microwave Radiance and Brightness Temperature, *J. Q. S. SPECTROSCOPY & RADIATIVE TRANSFER*, **109**, 1943-1950, doi:10.1016/j.jqsrt.2008.03.001.
- Chen, Y., F. Weng, Y. Han, **Q. Liu**, 2008: Validation of the Community Radiative Transfer Model (CRTM) by Using CloudSat Data, *J. Geophys. Res.* VOL. 113, D00A03, doi:10.1029/2007JD009561.
- Kazumori, M., **Q. Liu**, R. Treadon, and J. C. Derber, 2008: Impact study of AMSR-E radiances in the NCEP global data assimilation system, *Mon. Wea. Rev.*, **136**, 541-559.
- Hong, G., P. Yang, F. Weng, and **Q. Liu**, 2008: Microwave scattering properties of sand particles: Application to the simulation of microwave radiances over sandstorms, *Journal of Quantitative Spectroscopy & Radiative Transfer*, **109**, 684–702.
- Liu, Q.**, M. Kazumori, Y. Han, and F. Weng, 2007: Calculating Antarctic stratospheric temperature from Special Sensor Microwave Imager and Sounder, *Geophys. Res. Lett.*, **34**, L15812, doi:10.1029/2007GL030646

- Liu, Q.**, and F. Weng, 2007: Uses of NOAA-16 and -18 satellite measurements for verifying limb-correction algorithm, *J. Appl. Meteorol. Climatology*, **46**, 544-548.
- Han, Y., F. Weng, **Q. Liu** and P. van Delst, 2007: A fast radiative transfer model for SSMIS upper atmosphere sounding channel, *J. Geophys. Res.*, **112**, D11121, doi:10.1029/2006JD008208.
- Boukabara, S., F. Weng and **Q. Liu**, 2007: Passive Microwave Remote Sensing of Extreme Weather Events Using NOAA-18 AMSUA and MHS, *IEEE Geosci. Remote Sensing*, **45**, 2228-2246.
- Liu, Q.**, and F. Weng, 2006: Advanced Doubling-Adding Method for Radiative Transfer in Planetary Atmosphere, *J. Atmos. Sci.*, Vol. **63**, No. 12, pages 3459–3465.
- Liu, Q.**, and F. Weng, 2006: Radiance Assimilation in Studying Hurricane Katrina, *Geophysical Research Letters*, **33**, L22811, doi:10.1029/2006GL027543.
- Liu, Q.**, and F. Weng, 2006: Combined Henyey-Greenstein and Rayleigh (HG-Rayleigh) Phase Function, *Applied Optics*, **45**, 7475-7479.
- Liu, Q.**, and F. Weng, 2006: Detecting Warm Core of Hurricane from the Special Sensor Microwave Imager Sounder, *Geophysical Research Letters*, **33**, L06817.
- Liou, K. N., S. C. Ou, Y. Takano, and **Q. Liu**, 2005: A Polarized Delta-Four-Stream Approximation for Infrared and Microwave Radiative Transfer: Application to Satellite Data Assimilation. *J. Atmos. Sci.*, **62**, 2542-2554.
- Liu, Q.**, and F. Weng, 2005: Vicarious calibration of the third and fourth Stokes parameters of Windsat measurements, *Applied Optics*, Vol. **44**, No. 34, 2005.
- Liu, Q.**, and F. Weng, 2005: One-dimensional retrieval algorithm of temperature, water vapor, and cloud water profiles from advanced microwave sounding unit (AMSU), *IEEE Geosci. Remote Sensing*, **43**, No. 5, 1087-1095.