



Publications

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CPL-Specific Publications

- Vaughan, M.A., Z. Liu, M.J. McGill, and M.D. Obland, "On the spectral dependence of backscatter from cirrus clouds: an assessment of CALIOP's 1064 nm calibration using Cloud Physics Lidar measurements," *Atmospheric Chemistry and Physics*, (2009 submitted).
- McGill, M.J., M.A. Vaughan, C.R. Trepte, W.D. Hart, D.L. Hlavka, D.M. Winker, and R. Keuhn, "Airborne validation of spatial properties measured by the CALIPSO lidar," *Journal of Geophysical Research*, 112, doi: 10.1029/2007JD008768, 2007. ([download PDF file](#))
- McGill, M.J., L. Li, W.D. Hart, G.M. Heymsfield, D.L. Hlavka, P.E. Racette, L. Tian, M.A. Vaughan, and D.M. Winker, "Combined lidar-radar remote sensing: Initial results from CRYSTAL-FACE", *Journal of Geophysical Research*, 109, doi: 10.1029/2003JD004030, 2004. ([download PDF file](#))
- McGill, M.J., D.L. Hlavka, W.D. Hart, E.J. Welton, and J.R. Campbell, "Airborne lidar measurements of aerosol optical properties during SAFARI-2000," *Journal of Geophysical Research*, 108, doi: 10.1029/2002JD002370, 2003. ([download PDF file](#))
- McGill, M.J., D.L. Hlavka, W.D. Hart, J.D. Spinhirne, V.S. Scott, and B. Schmid, "The Cloud Physics Lidar: Instrument description and initial measurement results", *Applied Optics*, 41, pg. 3725-3734, June 2002. ([download PDF file](#))

CPL-Related Publications

- Vaughan, M.A., K.A. Powell, R.E. Keuhn, S.A. Young, D.M. Winker, C.A. Hostetler, W.H. Hunt, Z. Liu, M.J. McGill, and B.J. Getzewich, "Fully automated detection of cloud and aerosol layers using the CALIPSO lidar measurements," *Journal of Atmospheric and Oceanic Technology*, (2008 in press).
- Ackerman, S.A., R.E. Holz, R. Frey, E.W. Eloranta, B. Maddux and M. McGill, "Cloud detection with MODIS: part II validation," *Journal of Atmospheric and Oceanic Technology*, 25, 1073-1086, 2008.
- van Zadelhoff, G-J., A.J. Heymsfield, D.P. Donovan, and M.J. McGill, "Validating lidar-radar microphysics retrieval using in-situ measurements," *Journal of Geophysical Research*, 112, doi: 10.1029/2006JD007202, 2007.
- Noel, V., D.M. Winker, T.J. Garrett, and M. McGill, "Extinction coefficients retrieved in deep tropical ice clouds from lidar observations using a CALIPSO-like algorithm compared to in-situ measurements from the cloud integrating nephelometer during CRYSTAL-FACE," *Atmospheric Chemistry and Physics*, 7, 1415-1422, 2007.
- Heymsfield, A.J., C. Schmitt, A. Bansemer, G-J. van Zadelhoff, M.J. McGill, C. Twohy, and D. Baumgardner, "Effective radius of ice cloud particle populations derived from aircraft probes," *Journal of Atmospheric and Oceanic Technology*, 23, 361-380, 2006.
- Holz, R.E., S. Ackerman, P. Antonelli, F. Nagle, M. McGill, D.L. Hlavka, and W.D. Hart, "An improvement to the high spectral resolution CO2 slicing cloud top altitude retrieval," *Journal of Atmospheric and Oceanic Technology*, 23, 653-670, 2006.
- Liu, Z., W. Hunt, C. Hostetler, M. Vaughan, M. McGill, D. Winker, and Y. Hu, "Estimating random errors in backscatter lidar observations," *Applied Optics*, 45, 4437-4447, 2006.
- Chepfer, H., V. Noel, P. Minnis, D. Baumgardner, L. Nguyen, G. Raga, M.J. McGill, and P. Yang, "Particle habit in tropical ice clouds during CRYSTAL-FACE: comparison of two remote sensing techniques with in situ observations," *Journal of Geophysical Research*, 110, doi: 10.1029/2004JD005455, 2005.
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- Mitrescu, C., J.M. Haynes, G.L. Stephens, G.M. Heymsfield, and M.J. McGill, "Cirrus cloud optical, microphysical and radiative properties observed during CRYSTAL-FACE experiment: I. A radar-lidar retrieval system," *Journal of Geophysical Research*, 110, doi: 10.1029/2004JD005605, 2005.
- Zhou, D.K., W.L. Smith, Sr., X. Liu, A.M. Larar, H-L.A. Huang, J. Li, M.J. McGill, and S.A. Mango, "Thermodynamic and cloud parameter retrieval using infrared spectra data," *Geophysical Research Letters*, 32, doi: 10.1029/2005GL023211, 2005.
- Garrett, T.J., A.J. Heymsfield, M.J. McGill, B.A. Ridley, D.G. Baumgardner, P.T. Bui, and C.R. Webster, "Convective generation of cirrus near the tropopause," *Journal of Geophysical Research*, 109, doi: 10.1029/2004JD004952, 2004.

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