# Sundar A. Christopher

University of Alabama in Huntsville

# PROFESSIONAL PREPARATION

|  |  |  |  |
| --- | --- | --- | --- |
| Madras University | Chennai, India | Engineering | B.S., 1985 |
| S. Dakota School of Mines $ Technology | Rapid City, SD | Meteorology | M.S., 1989 |
| Colorado State University | Fort Collins, CO | Atmospheric Science | Ph.D., 1995 |
| University of Alabama in Huntsville | Huntsville, AL | Psychology | M.S., 2002 |

1. APPOINTMENTS

2007-Present Professor, Department of Atmospheric and Earth Science, UAH

2014-2019 Dean, College of Science, UAH

2010-2014 Department Chair, Department of Atmospheric Sciences, UAH

2007-2014 Associate Director Earth System Science Center, UAH

2001-2007 Associate Professor, Department of Atmospheric Sciences, UAH

1997-2001 Assistant Professor, Department of Atmospheric Sciences, UAH

1995-1997 Assistant Professor, Department of Meteorology, SDSM&T

1994-1995 Research Scientist, Institute of Atmospheric Sciences, SDSM&T

# PUBLICATIONS (out of 130+)

Peer Reviewed Publications

1) Gupta, Pawan, **S.A. Christopher**, F. Patadia & N. Rastogi. (2023). The unusual stubble burning season of 2020 in northern India: a satellite perspective. International Journal of Remote Sensing. 44. 6882-6896. 10.1080/01431161.2023.2277160.
2) Chang, I., Gao, L., Flynn, C. J., Shinozuka, Y., Doherty, S. J., Diamond, M. S., Longo, K. M., Ferrada, G. A., Carmichael, G. R., Castellanos, P., da Silva, A. M., Saide, P. E., Howes, C., Xue, Z., Mallet, M., Govindaraju, R., Wang, Q., Cheng, Y., Feng, Y., Burton, S. P., Ferrare, R. A., LeBlanc, S. E., Kacenelenbogen, M. S., Pistone, K., Segal-Rozenhaimer, M., Meyer, K. G., Ryoo, J.-M., Pfister, L., Adebiyi, A. A., Wood, R., Zuidema, P., **S.A. Christopher**, and Redemann, J.: On the differences in the vertical distribution of modeled aerosol optical depth over the southeastern Atlantic, Atmos. Chem. Phys., 23, 4283–4309, https://doi.org/10.5194/acp-23-4283-2023, 2023.
3) Sayeed, A., Lin, P., Gupta, P., Tran, N. N. M., Buchard, V., & Christopher, S. (2022). Hourly and daily PM2.5 estimations using MERRA-2: A machine learning approach. Earth and Space Science, 9, e2022EA002375. https://doi.org/10.1029/2022EA002375
4) Kaulfus, A. S., U. Nair, D. A. Jaffe, S. Christopher, and S. Goodrick, 2017: Biomass burning smoke climatology of the United States: Implications for particulate matter air quality. Environ. Sci. Technol., doi:10.1021/acs.est.7b03292
5) Guo, Y., N. Feng, S.A. Christopher, S. Hong, P. Kong, Estimation of fine particulate matter air quality over Beijing using satellite measurements, International Journal of Remote Sensing, 35(17), 2014.
6) Superczynski, S., and S. A. Christopher, Exploring Land Use and Land Cover Effects on Air Quality in Central Alabama using GIS and Remote Sensing, Remote Sensing, Remote Sens. 2011, 3(12), 2552-2567; doi:10.3390/rs3122552.
7) Yang, E., S. A. Christopher, S. Kondragunta, and X. Zhang (2011), Use of hourly Geostationary Operational Environmental Satellite (GOES) fire emissions in a Community Multiscale Air Quality (CMAQ) model for improving surface particulate matter predictions, J. Geophys. Res., 116, D04303, doi:10.1029/2010JD014482.
8) Huff, A. K., R. M. Hoff, S. Kondragunta, H. Zhang, P. Ciren, C. Xu, S. Christopher, E. S. Yang, and J. Szykman (2012), The NOAA air quality proving ground: Preparing the air quality community for next-generation products from the GOES-R satellite, *EM: Air and Waste Management Association's Magazine for Environmental Managers* (November), 32-37.
9) Hoff, R., S.A. Christopher, Remote Sensing of Particulate Matter Air Pollution from Space : Have we reached the promised land, J. Air&Waste Manage. Assoc., 59:642-675.
10) Wang, J., and S. A. Christopher (2003), Intercomparison between satellite-derived aerosol optical thickness and PM2.5 mass: Implications for air quality studies, *Geophysical Research Letters*, *30*(21), 2095

d) Other activities
Dr. Christopher has served on numerous science teams and panels including MODIS, CERES, ERBE, SCARAB, EOSDIS, and CALIPSO. He has also presented satellite air quality training sessions at the United Nations Symposium in Graz, Austria, the AMS, and other venues.