CURRICULUM VITAE

Wangshu Tan

Ph.D. Candidate

Department of Atmospheric and Oceanic Sciences, School of Physics,

Peking University, Beijing 100871, China

Email: tanws@pku.edu.cn

Phone: +86 13811703616

Research Interests

Aerosol optical and radiative properties

Aerosol-cloud-radiation interactions

Remote sensing and in situ observations of aerosols and clouds

Microphysics processes in clouds

Global climate change

Education Background

2015 – present

Ph.D. candidate in Atmospheric Physics and Atmospheric Environment

Minor: Atmospheric Radiation and Remote Sensing

Department of Atmospheric and Oceanic Sciences, Peking University

Research Advisor: Chengcai Li

Dissertation title: *Retrieval of aerosol properties using multiwavelength polarization/Raman lidar measurements*

2011 – 2015

B.S. in Atmospheric Sciences

Department of Atmospheric and Oceanic Sciences, Peking University

Academic Skills

Programing

Python, Fortran, C, Linux System, Machine Learning

Models

BHMIE, BHCOAT, MSTM, T-MATRIX, SBDART, MONORTM, RRTM, ISORROPIA-II, MEGAN

Instruments

MPL, MWRL, Sun Photometer (CE-318), DMA, CPC, APS, AE33, AE51, MAAP, SP2, PASS-3, TEOM, CPMA, Humidified Nephelometer System, Microwave Wind Profiler, Cloud Radar

Peer-Reviewed Publications

[1] **Tan, W.**; Li, C.; Liu, Y.; Meng, X.; Wu, Z.; Kang, L.; Zhu, T., Potential of polarization lidar to profile urban aerosol phase state during haze episodes. *Environmental Science & Technology Letters* **2019,** 10.1021/acs.estlett.9b00695.

[2] **Tan, W.**; Zhao, G.; Yu, Y.; Li, C.; Li, J.; Kang, L.; Zhu, T.; Zhao, C., Method to retrieve cloud condensation nuclei number concentrations using lidar measurements. *Atmospheric Measurement Techniques* **2019,** *12*, (7), 3825-3839, 10.5194/amt-12-3825-2019.

[3] Chu, Y.; Li, J.; Li, C.; **Tan, W.**; Su, T.; Li, J., Seasonal and diurnal variability of planetary boundary layer height in Beijing: Intercomparison between MPL and WRF results. *Atmospheric Research* **2019,** *227*, 1-13, 10.1016/j.atmosres.2019.04.017.

[4] Li, J.; Li, C.; Guo, J.; Li, J.; **Tan, W.**; Kang, L.; Chen, D.; Song, T.; Liu, L., Retrieval of aerosol profiles by Raman lidar with dynamic determination of the lidar equation reference height. *Atmospheric Environment* **2019,** *199*, 252-259, 10.1016/j.atmosenv.2018.11.048.

[5] Bian, Y.; Zhao, C.; Xu, W.; Kuang, Y.; Tao, J.; Wei, W.; Ma, N.; Zhao, G.; Lian, S.; **Tan, W.**; Barnes, J. E., A novel method to retrieve the nocturnal boundary layer structure based on CCD laser aerosol detection system measurements. *Remote Sensing of Environment* **2018,** *211*, 38-47, 10.1016/j.rse.2018.04.007.

[6] Zhao, G.; Zhao, C.; Kuang, Y.; Tao, J.; **Tan, W.**; Bian, Y.; Li, J.; Li, C., Impact of aerosol

hygroscopic growth on retrieving aerosol extinction coefficient profiles from elastic-backscatter lidar signals. *Atmospheric Chemistry and Physics* **2017,** *17*, (19), 12133-12143, 10.5194/acp-17-12133-2017.

Manuscripts Submitted

[1] **Tan, W.**; Yu, Y.; Li, C.; Li, J.; Kang, L.; Dong H.; Zeng L.; Zhu, T., Profiling aerosol liquid water content using a polarization lidar. Submitted to *Environmental Science & Technology*.

[2] Yu, Y.; **Tan, W.**; Zhao, G.; Shen, C.; Zhao, C., Determination of black carbon mass concentration from aerosol light absorption using variable mass absorption cross-section. Under review in *Atmospheric Environment*.

[3] Xu, X.; Jiang, Z.; Li, J.; Chu, Y.; **Tan, W.**; Li, C., Impacts of meteorology and emission control on the abnormally low pollution phenomenon during the winter of 2017 in Beijing. Minor revision in *Atmospheric Environment*.

[4] Su, T.; Li, Z.; Li, C.; Li, J.; Han, W.; Shen, C.; **Tan, W.**; Guo, J., The conclusive impact of aerosols vertical structure on low-atmosphere stability and its critical role in aerosol-PBL interaction. *Atmospheric Chemistry and Physics Discussions* **2019,** 10.5194/acp-2019-764.

Selected Conference Presentations

Method to Retrieve Cloud Condensation Nuclei Number Concentrations Using Multiwavelength Raman Lidar, **10th International Aerosol Conference**, St. Louis, MO, USA, September 2018.