Zhenping Yin

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Date of Birth: 1992-07-07

http://github.com/ZPYin/

Education

- **Wuhan University** — Wuhan, China
  Ph.D. Space Physics — *2014 - 2020*
  - School of Electronics and Information
- **Wuhan Univeristy** — Wuhan, China
  B.E. Technology of Electronics and Information — *2010 - 2014*
  - School of Electronics and Information

Research and Work Experience

- **2-year Joint Training Program in TROPOS** — Leipzig, Germany
  PhD student — *October 2017 - October 2019*
  - Developed a absolute lidar calibration algorithm for ground-based multiwavelength Raman polarization lidar
  - Designing and upgrading the automatic data processing chain for the global multiwavelength Raman polarization lidar network–**PollyNET**, which included the absolute lidar calibration, water vapor calibration and depolarization calibration
  - Co-developed the new website Picasso (http://picasso.tropos.de/) for displaying the lidar measurements in realtime
  - Improved the target classification algorithm introduced by Holger Baars with combining the Raman signal, which gives more accurate and stable results results under urban pollution, dust and low level clouds
  - First evaluation of the full-day performance of the shipborne sun-lunar-sky photometer

- **3-year PhD study in MUA** — Wuhan, China
  PhD student — *September 2014 - October 2017*
  - Participated in project of 'Development the prototype of a shipborne Raman polarization lidar for remote sensing of marine aerosol', which was funded by State Oceanic Administration People Republic of China. In the project, a compact 532 nm Raman polarization lidar system was developed and later on, was tested on the Yellow Sea. The lidar system can observe the diurnal evolution of the marine boundary layer at a resolution of 3.75 m and 1 min
  - Developed a multiple scattering (MS) program with Monte-Carlo approach to analyze the MS effects for polarization lidar in liquid clouds. With extinction coefficient less than 5 km^{-1} in the liquid cloud, the volume depolarization ratio at 532 nm was less than 0.15
  - Designed a robust Licel gluing algorithm to glue the photon counting signal and analog signal. The algorithm was well tested under more than 10 Licel-based lidar systems
  - Developed many user friendly and effective GUIs for lidar data processing, error analysis and data visualization

Publications

- Yin, Z., Ansmann, A., Baars, H., Seifert, P., Engelmann, R., Radenz, M., Blarel, L. (2019). Aerosol measurements with a shipborne Sun–sky–lunar photometer and collocated multiwavelength Raman polarization lidar over the Atlantic Ocean. Atmospheric Measurement Techniques, 12(10), 5685-5698.

Honor and Awards

- Jun 2019 'Best Poster' in The 6th Symposium on Atmospheric Lidar Scattering and Remote Sensing
- Mar 2017 Patent of a full-day 355 nm temperature rotation Raman lidar based on single-line extraction technique, No.ZL 2017 1 0198611.5
- Jun 2015 Patent of a utility model of 'A state-of-the-art polarization lidar system', No.ZL 2015 2 0533604.2
- Oct 2013 'Excellent' in the evaluation of National Scientific Research for College students
- Mar 2012 Ranked 4th (**1%**) in **3rd Chinese Mathematics Competitions for College Students (CMC)**

Skills

- **Tech Stack:** Proficient in Matlab, Python, IDL, linux, git and good at C