

Daren Lyu

LAGEO, Institute of Atmospheric Physics, Chinese Academy of Sciences,

P. O. Box 9804, Beijing 100029, China

Tel: +86-10-82995064

E-mail: ludr@mail.iap.ac.cn

Research Interests

Atmospheric remote sensing, Atmospheric radiative transfer, Middle atmospheric dynamics and solar-terrestrial relations

Projects:

In the last 50 years, Prof. Lyu Daren has been involved in basic and high-tech research in various fields of atmospheric science, solar-terrestrial physics, earth observation, and global change research. During the past 25 years, Prof. Daren Lyu conducted research on middle atmosphere dynamics, and as chief scientist to develop the first VHF/ST radar in mainland China, worked on research about gravity waves, ozone depletion, volcanic eruptions, and stratosphere-troposphere coupling.

In the late 1990s, Prof. Lyu participated in AMSR (microwave sensor onboard Japanese earth observation satellite ADEOS) retrieval development as the PI. Prof. Daren Lyu is the chief scientist of Earth Environment Monitoring Unit onboard China spacecraft SZ-3 which was launched in 2002. Prof. Daren Lyu also actively worked on the earth observation high-tech R&D program, as well as R&D of ground-based atmosphere remote sensing system. During 2011-2016, Prof. Daren Lyu was the chief scientist of the Chinese Academy of Sciences five-year Strategic Priority Program on “Climate Change: Carbon Budget and Related Issues”. During 2012-2017, Prof. Daren Lyu worked as the chief scientist of NSFC (National Natural Science Foundation of China) funded ground-based research facility – “Atmospheric Profiling Synthetic Observation System” (APSOS). APSOS is the world's first ground-based facility for profiling atmospheric variables and multiple constituents in the neutral

atmosphere. The APSOS system is deployed in Yangbajing International Cosmic Ray Observatory (4300 m A.S.L.) for long-term observations of temperature, wind, water vapor, aerosol, cloud, ozone, NO₂, SO₂, and CO₂ of the whole (neutral) atmosphere, from the surface up to 110 km over the Tibetan Plateau in China. Prof. Daren Lyu is one of the scientific team leaders of the Ground-based Space Environment Monitoring Network.

Community Service:

1. 1988-2000, 2009-2012, International Radiation Commission (IAMAS) member
2. 1992-2000, International Committee on Middle Atmosphere (IAMAS) member
3. 1995-2003, Scientific Representative of SCOSTEP
4. 1987-, Council member of the Chinese Space Science Society (CSSS) and member of Commission on Space Physics, CSSS
5. 1986-2005, Vice Chair of Committee on Atmospheric physics, Chinese Meteorological Society
6. 2007-, Chair of the China National Committee of International Association of Meteorology and Atmospheric Science (IAMAS)
7. 2008-, Chief editor of *Advances in Atmospheric Science*
8. 2011- 2019, Member at large – Executive Bureau of IAMAS