

中国科学院 大气物理研究所中层大气和全球环境探测重点实验室 大气环境和极端气象重点实验室



中层大气和全球环境探测论坛

Colloquiums of Middle Atmospheric and Global Environment Observation

(10)

Lightning Physics Revealed by Recent Broadband HF-VHF Observations

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报告地点: 大气所2号楼 913会议室

邀 请 人: 杨静 研究员

报告人简介:

Dr. Ningyu Liu (刘宁宇) is a professor at the University of New Hampshire. He obtained his B.S. and M.S. degrees from Zhejiang University, and Ph.D. degree from the Pennsylvania State University, all in Electrical Engineering. He is a recipient of Young Scientist Award from International Union of Radio Science in 2008 and US NSF CAREER Award in 2010. His research interests are in the areas of plasma discharge physics, radio science, remote sensing, and computational electrodynamics. He has published over eighty papers in top research journals, including Nature Communications, Science Advances, and Physical Review Letters. He is currently an associate editor of Journal of Geophysical Research – Atmospheres.

报告摘要:

Broadband HF (3-30 MHz) and VHF (30-300 MHz) measurements and observations have provided crucial information for improving our understanding of lightning physics for many decades. This talk will present several recent example studies that utilize the VHF observations with improved temporal and spatial resolutions and spectral coverage to reveal the physics of the underlying electrical breakdown processes of lightning. We will also discuss the need to better understand the dynamics of streamers, which are the main source of lightning VHF emissions, in order to properly interpret the HF-VHF observations.

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