

Professor Lou-Chuang Lee

Professor Lou-Chuang Lee was born on April 20, 1947. He received a B.S. degree in physics from National Taiwan University in 1969, and M.S. and Ph.D. degrees in physics from the California Institute of Technology in 1972 and 1975, respectively. He specializes in space science and plasma physics. From 1975 to 1995, he performed advanced research at the NASA/Goddard Space Flight Center and served as a professor at the University of Maryland and University of Alaska. Upon returning to Taiwan in 1995, Prof. Lee joined the faculty of Department of Physics at the National Cheng Kung University, and also served as the Dean of the College of Science. He was appointed the chief scientist at National Space Program Office in 1997, and made director of National Space Program Office in 2001. Since that time he has led the science and engineering teams implementing the FORMOSAT-2 and FORMOSAT-3 programs. In 2003, he became the first President of the National Applied Research Laboratories and the President of National Central University in 2006. In 2008, he was appointed the Minister of National Science Council. He is a distinguished research fellow of Institute of Earth Sciences, Academia Sinica since 2012.

Prof. Lee has received many international as well as national awards, including the Toray Science Foundation Fellow, the Terris Moore Award in space physics, the Outstanding Faculty Performance Award, the Fullbright Scholar Award, the Emil Usibelli Distinguished Research Award, the Foundation for the Advancement of Outstanding Scholarship Award, the Ministry of Education's Outstanding Academic Award, The Presidential Science Prize (The highest honor in science in Taiwan), Academician of Academia Sinica, Elected Member of the World Academy of Sciences (TWAS), Elected Member of International Academy of Astronautics (IAA) and Elected Member of International Academy of Engineering, Russian Academy of Engineering (IAE).

Prof. Lee is a well-known space and plasma physicist. He has published more than 280 scientific papers (over 6700 citations and H-index=43, March 2014) as well as three academic monographs. During his career, Prof. Lee developed several new theories to explain observed space phenomena. His major research achievements include: (a) the turbulence spectrum of interstellar medium, (b) the cyclotron maser theory for the generation of auroral kilometric radiation, (c) the multiple X-line reconnection model for magnetic flux transfer events, (d) the formation mechanism of solar prominences, (e) a new mechanism for solar coronal heating, and (f) the discovery of "gigantic jets" in the Earth's upper atmosphere.

Curriculum Vitae of Professor Lou-Chuang Lee

Name

Lou-Chuang Lee

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Degrees

Ph. D. Physics, California Institute of Technology, 1975

M. S. Physics, California Institute of Technology, 1972

B. S. Physics, National Taiwan University, 1969

Employment and Research Experience

1. **National Science Council, Minister, 2008 – 2012.**
2. **National Central University, President, 2006 – 2008.**
3. National Central University, Graduate Institute of Space Science, Professor, 2006 – present.
4. **National Applied Research Laboratories, Founding President, 2003 – 2006.**
5. **National Space Organization (NSPO), Chief Scientist, 1997 – 2001; Director, 2001 – 2003.**
6. Ministry of Education, Advisor, 2000 – 2005.
7. **National Cheng Kung University, College of Science, Dean, 1995 – 2001.**
8. **University of Alaska, Geophysical Institute, Professor, 1978 – 1995.**
9. **University of Maryland, Institute for Physics Science and Technology, Visiting Assistant Professor, 1977 – 1978.**
10. **NASA/Goddard Space Flight Center, Research Associate, 1975 – 1977.**
11. Visiting Professor / Scientist: Tokyo University (1986), University of Maryland (1985,1987), National Central University (1990), Princeton University (1991), China University of Science and Technology (1990), Nagoya University (1996).

Service to the community

1. **Associate Editor, Journal of Geophysical Research (Space Physics), American Geophysical Union, 1989 – 1991.**

2. Editor-in-Chief, Terrestrial, Atmospheric and Oceanic Sciences (TAO), Chinese Geoscience Union (Taiwan), 1997 – 2001.
3. Editorial Board Member, Chinese Journal of Geophysics (China), since 2001.
4. President, Chinese Geoscience Union (CGU), 2001-2003.
5. **Editor, Journal of Geophysical Research (Space Physics), American Geophysical Union, 2001 – 2005.**
6. President, Aeronautical and Astronautical Society of the Republic of China (AASRC), 2003 – 2005.
7. President, National Committee of Republic of China for International Union of Radio Science (URSI), 2006 – present.

HONORS AND AWARDS

1. Japan Toray Science Foundation Fellow, 1986.
2. Terris Moore Award in Space Physics, “For his work on auroral kilometric radiation”, Terris Moore, Boston and University of Alaska, 1987.
3. Outstanding Faculty Performance Award, University of Alaska, 1988.
4. **Fulbright Distinguished Scholar, Institute for Space Research, Dos Campos, Brazil, 1988.**
5. Honorary Professor, Center for Space Science and Application, Chinese Academy of Sciences (Beijing), 1990.
6. International Guest Professor, China University of Science and Technology, Hefei, China, since 1990
7. Emil Usibelli Distinguished Research Award, University of Alaska, 1994.
8. Outstanding Scholar, Foundation of the Advancement of Outstanding Scholarship, Taiwan, 1996-2001.
9. Outstanding Research Achievement Award, National Science Council 1997-1998, 2001-2002.
10. **Outstanding Performance Award, “For his contribution to FORMOSAT-1 Project”, National Science Council, 1999.**
11. Fellow, Physical Society of the Republic of China, 2000.
12. **Academic Award, Ministry of Education, Taiwan, 2001.**
13. **Elected Academician, Academia Sinica, Taiwan, 2002.**
14. Li Kwoh Ting Chair Professor, National Central University, 2005, 2012.
15. Fellow, Meteorological Society of the Republic of China, 2005.
16. **The Presidential Science Prize (The highest honor in science in Taiwan), “For his outstanding contributions in space science and his implementation of two world-class space programs, FORMOSAT-2 and FORMOSAT-3”, President, Republic of China, 2005.**
17. **Elected Member, The World Academy of Sciences (TWAS), 2006.**
18. **Elected Member, International Academy of Astronautics (IAA), 2007.**
19. **Elected Member, International Academy of Engineering, Russian Academy of Engineering (IAE), 2011.**

20. Li Kwoh Ting Chair Professor, National Cheng Kung University, 2011.
21. **Achievement Medal (First Rank), “For promotion of science and technology in Taiwan during his tenure as Minister of National Science Council”, Executive Yuan, Taiwan, 2012.**
22. Distinguished Lecture, at Asia Oceania Geosciences Society (AOGS) Annual Meeting in Brisbane, 2013.

Memberships

1. American Geophysical Union, 1976 – present.
2. American Physical Society.
3. The Physical Society of Republic of China.
4. The Meteorological Society of the Republic of China.
5. Asia Oceania Geosciences Society.

Publications, Citations and H-index

Lou-Chuang Lee is the author of **282** publications, **229** in peer-reviewed scientific journals. The papers published in scientific journals have **6717 citations** and **H-index = 43** (March, 2014).