



**The Combustion Institute**

5001 Baum Boulevard, Suite 644  
Pittsburgh, Pennsylvania 15213-1851 USA  
Ph: (412) 687-1366  
Office@CombustionInstitute.org

Fax: (412) 687-0340  
CombustionInstitute.org

---

**Naian Liu**

*Candidate, 2016 CI Board of Directors*

**Reasons for Nomination**

Although fire has been a topic of interest to the Combustion Institute since its very foundation in 1958, our understanding of fire remains limited. As Hoyt C. Hottel (1903–1998) described, "A case can be made for fire being, next to life processes, the most complex of phenomena to understand". The complexity of fires comes from that there is a huge number of different fires which involve complex interactions among chemical reactions, heat transfer and fluid mechanics, with diverse scenarios and controlling mechanisms. The discipline of fire science is less mature than other combustion topics, and more decades of fruitful research are required to gain full understanding of this natural combustion phenomenon. My major motivation of serving the Board of Directors is to promote combustion research in the field of fire science. During the past 15 years, I have been dedicated to the theoretical and experimental studies on the combustion of extreme fire behaviors. If elected to the Board of Directors, I will endeavor to promote cross-disciplinary research aiming at closer collaboration between combustion science and fire science. I commit to serve the international combustion community with the same rigor and enthusiasm that have enabled me to serve the fire community.



*Naian Liu*

*See next page(s) for candidate's curriculum vitae.*

## **BIOGRAPHICAL DATA of Naian Liu**

Naian Liu is currently professor at University of Science and Technology of China (USTC). He graduated from USTC getting his PhD degree of Engineering Thermophysics in 2000. Then he was employed in USTC as a lecturer at State Key Laboratory of Fire Science (SKLFS) and in 2004 promoted to be an associate professor of USTC. In 2007 he was promoted to be a professor of USTC. He has been serving as the Vice Director of SKLFS since 2009. He is also the chief of the Division of Wildland and Urban Fires of SKLFS.

The research areas of Prof. Liu include pyrolysis, material flammability, fire spread and extreme fire behaviors. He has authored over 130 peer-reviewed papers and 14 invited speeches. His greatest contributions have been revolutionizing the theoretical and experimental descriptions of extreme fire behaviors. This work has been published in over 40 journals and proceedings papers. Among these, 13 papers have been published in *Proc. Combust. Inst. (ProCI)* and *Combust. Flame (CnF)*, and also 10 keynote lectures have focused specifically on this topic. In addition, 4 papers have been selected to make oral presentations on the coming 36th International Symposium on Combustion.

Prof. Liu was a recipient of 2010 China National Science and Technology Progress Award (First-class), in recognition his dedication to fire research. He was awarded Lu Jiaxi Youth Excellence Prize of Chinese Academy of Sciences (highest youth prize of CAS) in 2008 and Wu Zhonghua Youth Excellence Prize (highest youth prize of thermophysics community in China) in 2013.

Prof. Liu has been an important proponent of enhancing interaction between fire and combustion communities. He serves as the Vice-director of Chinese Section of the Combustion Institute. Recently, Prof. Liu and Prof. Guillermo Rein together wrote an article “Fire Science is in season” for the website of the Combustion Institute, which highlights the importance of combustion science in fire researches (<https://www.combustioninstitute.org/News/newsArchiveDetails.php?news=149>). By the efforts of Prof. Liu, an International Research Center on Large-scale Fires has been established which focuses on the combustion dynamics of large-scale fires. International partners include NIST-EL (USA), ICKC (Russia), ADAI-CEIF (Portugal), and Imperial College London (UK). The center has been approved as a National Center for International Research by China Ministry of Science and Technology in 2014.

Prof. Liu serves many international organizations and conferences. He is Member of Board of Directors of International Association of Wildland Fire, Member of the International Forum of Fire Research Directors, and Member of International Scale Modeling Committee. For international journal editorial work, he has been the Associate Editor of *Fire Safety Journal* (2013-2015), Associate Editor of *Fire Technology* (from 2016) and Editorial Board Member of *Fire Science Reviews*. He also serves as the Associate Editor of Newsletter of International Association for Fire Safety Science (IAFSS). For conference organization, he served as the Leader Chair for the topic “Wildland fires” of the 11th (2014) and 12th (2017) International Symposium on Fire Safety Science (IAFSS Symposium), and has also been invited to Chair the Poster Session for the 12th IAFSS Symposium. He also served as the Award Committee Chair of the 10th Asia-Oceania Symposium on Fire Science and Technology (AOSFST) (2015) and the Technical Program Chair of the 9th AOSFST (2012). He is member of Combustion Institute, and co-chaired the Colloquium of Fire Research for the 35th (2014) and 36th (2016) International Symposia on Combustion. In China, he has been invited to serve as the Technical Program Chairs for the China National Symposium on Combustion 2016 and the 2nd National Young Scholar Meeting on Combustion Research (2016).