



The Combustion Institute

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Zheng Chen

2020 Candidate Profile: The Combustion Institute Board of Directors

Reasons for Nomination

I have been actively involved with the Combustion Institute activities in different roles: as Colloquium Co-Chair and Colloquium Coordinator of the 36th, 37th and 38th International Symposium on Combustion; as a member of the Editorial Board of Combustion and Flame; and as a member of the Bernard Lewis Fellowship committee. I am also a member of the Board of Directors of the Institute for Dynamics of Explosions and Reactive Systems, and was the Secretary-in-General for the 27th ICDERS (Aug. 2019, Beijing). Besides, I have a strong commitment to serving the combustion community in China. In 2017 and 2018, I was the Program Co-Chair of the China National Symposium on Combustion. For each symposium, about 250 oral presentations and 300 posters were selected from around 700 submissions, and there were more than 1,200 attendees.



If elected, I commit to enthusiastically serve the international combustion community. I would like to contribute my efforts in the education and promotion of young members of the Combustion Institute. Specifically, I will have active engagement in the combustion education for graduate students, including combustion summer schools, online course/sharing education materials, exchange and internship programs, and student travel support. I will also endeavor to institute measures to promote and support young researchers in combustion science, to attract young researchers from different fields related to combustion, and to promote cross-disciplinary collaborations.

See the next page for the candidate's curriculum vitae.

Zheng Chen

Education

Ph.D. (Jan. 2009) Department of Mechanical and Aerospace Engineering, Princeton University, USA
M.E. (Mar. 2006) Department of Mechanical and Aerospace Engineering, Princeton University, USA
M.S. (Jul. 2003) Department of Engineering Mechanics, Tsinghua University, China
B.S. (Jul. 2001) Department of Engineering Mechanics, Tsinghua University, China

Experience

Zheng Chen was appointed as an Associate Professor (without Tenure) at Peking University from 2009 to 2011, and as a Professor (without Tenure) from 2012 to 2014. He has been appointed as an Associate Professor (with Tenure) since 2015 and the Vice Dean of College of Engineering, Peking University since 2020. He was a visiting professor at Princeton University (Jul. – Aug., 2014) and at CORIA, INSA de Rouen (Aug. – Sep., 2019).

Research

Zheng Chen's research efforts are dedicated to studying the flame dynamics of fundamental combustion processes. Combining theoretical analysis, numerical simulation, and experiment measurement, he has worked on challenging problems on ignition theory, accurate laminar flame speed measurement, fast flame propagation, deflagration-to-detonation transition, and detonation engines. He has published more than 80 peer reviewed journal papers, including 49 on CNF and PROCE. His papers have more than 4,600 citations on Google Scholar.

Selected Awards and Honors

- Hiroshi Tsuji Early Career Researcher Award, International Combustion Institute (2020)
- Young Scholar Award in Science and Technology, Chinese Society of Theoretical and Applied Mechanics (2019)
- Chung-Hua Wu Outstanding Young Scholar Award, Chinese Society of Engineering Thermophysics (2017)
- Plenary Lecture, 54th Korean Society of Combustion Symposium, Gangneung, Korea (2017)
- Young Investigator Prize, Asian-Pacific Conference on Combustion (2015)
- Tingfang Huang/He Xin Outstanding Young Scholar, Peking University (2015)
- Excellent Young Researcher, National Natural Science Foundation of China (2013)
- Bernard Lewis Fellowship, International Combustion Institute (2008)

Selected Professional Activities

- Colloquium Coordinator of 38th International Symposium on Combustion
- Colloquium Co-Chair of 36th and 37th International Symposium on Combustion
- Editorial Board Member: Combustion and Flame (2017-2022), Journal of Thermal Science (2018-2022), Chinese Journal of Aeronautics (2017-present), ES Energy & Environment (2019-present), Journal of Propulsion Technology (in Chinese, 2019-present)
- Board of Directors, Institute for Dynamics of Explosions and Reactive Systems (2019-present)
- Bernard Lewis Fellowship Committee Member (2020-present)
- Program Co-Chair, 2017 and 2018 China National Symposium on Combustion
- Program Co-Chair, 2017 and 2018 China National Young Scholar Conference on Combustion Research
- Chair and organizer, the 2nd International Workshop on Near-limit Flames (Aug. 2019, Beijing)
- Secretary-in-general of host committee, the 27th ICDERS (Aug. 2019, Beijing)
- Committee member: Chinese Section of the Combustion Institute, International Workshop on Flame Chemistry, International Workshop on Near-limit Flames