



The Combustion Institute

5001 Baum Boulevard, Suite 644

Pittsburgh, Pennsylvania 15213-1851 USA

Ph: (412) 687-1366

office@combustioninstitute.org

<https://www.combustioninstitute.org/>

Paul Papas, Ph.D.

2024 Candidate Profile: The Combustion Institute Board of Directors

Reasons for Nomination

I have been a member of The Combustion Institute for more than 30 years, and currently serve as Chair of the US Sections (USSCI) Board of Directors. I am a Technical Fellow in combustion at the RTX Technology Research Center (formerly known as United Technologies Research Center)- the central research organization for RTX Corporation comprised of the Pratt & Whitney, Collins Aerospace and Raytheon business units.

As we strive to meet the challenges of energy transition and sustainability, I would look forward to an opportunity to bring my industrial experience and outlook towards shaping the future of The Combustion Institute. The next generation of young researchers and engineers are particularly critical to our future, and we need to further encourage their involvement by enhancing mentoring and networking activities at the international level.

I would like to contribute by strengthening academia-industry relationships through promoting workshops with industry, providing young researchers with more opportunities for mentorship and engagement with industry, and increasing industrial participation and attendance at the events of The Combustion Institute.



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

Technical Fellow, RTX Technology Research Center, RTX Corporation, E. Hartford, CT 06118 USA

Work Experience:

Dr. Paul Papas was a National Research Council Fellow at the US Naval Research Laboratory from 1994-1996, a Senior Lecturer at the École Polytechnique Fédérale de Lausanne (EPFL) in Lausanne Switzerland from 1996-2004, and an Associate Professor at the Colorado School of Mines (USA) from 2004-2010. He joined the United Technologies Research Center (now named RTX Technology Research Center) in 2010 and was Multiphase Combustion Discipline Leader from 2011-2016 and Combustion Science Group Leader from 2016-2020. Currently, Dr. Papas is Technical Fellow of Combustion & Propulsion Technology.

Education:

- B.S, Aerospace Engineering, Georgia Institute of Technology, USA (1988)
- M.A., Mechanical & Aerospace Engineering, Princeton University, USA (1990)
- Ph.D., Mechanical & Aerospace Engineering, Princeton University, USA (1994); Advisor: Prof. Irvin Glassman

Research:

Dr. Papas holds 29 patents, patent applications and has over 90 journal publications and conference papers in combustion and areas related to aviation sustainability, including alternative fuels, combustion dynamics and instabilities, extinction, material flammability, fuel oxidation kinetics, and ecofriendly fire suppressant development.

Selected Professional Awards and Recognition:

- Fellow of The Combustion Institute
- Associate Fellow of the American Institute of Aeronautics and Astronautics (AIAA)
- Connecticut Academy of Science and Engineering (CASE)
- Pratt & Whitney Engineering Excellence Award
- CCS President's Award for Excellence (United Technologies Corporation)

Selected Professional Service:

- **Chair**, US Board of Directors of The Combustion Institute (2023–)
- **Chair**, Eastern States Section Executive Board of The Combustion Institute (2022-2024)
- **Chair**, Awards Selection Committee, US Sections of The Combustion Institute (2023)
- **Secretary**, Western States Section Executive Board of The Combustion Institute (2009-2010)
- **Colloquium Co-Chair** of *38th International Symposium on Combustion* (2020/2021)
- **Program Chair**, 2020 Spring Meeting of Eastern States Section of The Combustion Institute

Selected Publications:

- **P. Papas**, C. Cao, W. Kim, E. Baldwin, and A. Chattaway, *Fire Suppression using Trifluoroiodomethane (CF₃I)-Carbon Dioxide (CO₂) Mixtures*, *Proc. Combust. Inst.*, Vol. 39, (2023), 3765-3773.
- **P. Papas**, S. Zhang, W. Kim, S. P. Zeppieri, M. B. Colket, and P. Verma, *Laminar Flame Speeds of 2,3,3,3-tetrafluoropropene Mixtures*, *Proc. Combust. Inst.*, Vol. 36, (2017), 1145-1154.
- O. A. Powell, **P. Papas** and C. Dreyer, *Hydrogen- and C₁-C₃ Hydrocarbon-Nitrous Oxide Kinetics in Freely Propagating and Burner Stabilized Flames, Shock Tubes, and Flow Reactors*, *Combust. Sci. Tech.*, 182, 3, (2010), 252–283.
- O. A. Powell, **P. Papas** and C. Dreyer, *Laminar Burning Velocity of Hydrogen-, Methane-, Propane- and Acetylene-Nitrous Oxide Flames*, *Combust. Sci. Tech.*, 181, 7, (2009), 917–936.
- M. Füre, **P. Papas**, and P. A. Monkewitz, *Nonpremixed Jet Flame Pulsations near Extinction*, *Proc. Combust. Inst.*, Vol. 28, (2000), pp. 831–838.
- **P. Papas**, I. Glassman, and C.K. Law, *Effects of Pressure and Dilution on the Extinction of Counterflow Nonpremixed Hydrogen-Air Flames*, *Proc. Combust. Inst.*, Vol. 25, (1994), 1333–1339.