

Tiziano FARAVELLI

<https://www.creckmodeling.polimi.it/>

EDUCATION

1990 PhD. Chemical Engineering, Politecnico di Milano, Italy

CURRENT AND PREVIOUS POSITIONS

2004- Full Professor, Politecnico di Milano, Italy.
1998-2004 Associate Professor, Politecnico di Milano, Italy
1993-1998 Assistant Professor, Politecnico di Milano, Italy
1990-1993 Senior Engineer in the R&D department at KTI, Italy

RESEARCH ACTIVITIES

Chemical reaction engineering of complex systems: pyrolysis, partial oxidation and combustion modeling of gas, liquid and solid fuels, both fossil and renewable fuels. Pollutant formation (NO_x, SO_x, PAH and soot) from combustion processes. Mechanism validation and reduction. Heterogeneous combustion of liquids (droplets) and solids (detailed modeling at the particle size). Numerical fluid dynamics of reactive flows. Turbulence/kinetics interactions.

INSTITUTIONAL RESPONSIBILITIES

2010-2018 Head of Chemical Engineering Section of Chemistry, Materials and Chemical Engineering Department, Politecnico di Milano.
2010-2015 Coordinator of PhD school in Industrial Chemistry and Chemical Engineering at Politecnico di Milano.

FELLOWSHIPS AND AWARDS

2024 Jurgen Warnatz Gold Medal from the Combustion Institute
2023 Distinguished paper in the Gas-Phase Reaction Kinetics colloquium for the 39th International Symposium of Combustion
2021-2025 Mercator Fellow of Darmstadt University
2019 Fellow of the Combustion Institute
2012 Sugden Award 2012, awarded by the from British Section of the Combustion Institute, for the paper: G. Dixon-Lewis, P. Marshall, B. Ruscic, A. Burcat, E. Goos, A. Cuoci, A. Frassoldati, T. Faravelli, P. Glarborg "Inhibition of hydrogen oxidation by HBr and Br₂", Combustion and Flame, vol. 159 pp. 528-540.
2010 "Feature Article" in the Combustion and Flame edition of number 157.
1987-1989 PhD scholarship, Italian Ministry of Education (MIUR), Italy

SUMMARY OF ACADEMIC ACHIEVEMENTS

- Tiziano Faravelli's research has led to 304 refereed journal or book publications, 3 co-edited books, 1 patent. His papers are published in combustion, chemistry and engineering journals.
- Citation Data (January 2024, Scopus): **Total Citations > 16,600. H-index = 69.** 46 papers over 100 citations.

TEACHING ACTIVITIES

1998 – 2014 Theory of Errors and Applied Statistics.
1998 – 2012 Transport Phenomena.
2009 – 2012 Pollutant Formation from Combustion Processes.
2011 - Fluid-dynamics and chemical engineering fundamentals
1998- Supervisor of PhD students and Postdocs
1998- Host of many visiting students from Belgium, China, France, Germany, Spain, USA.

SELECTED EVALUATION SERVICE, EDITORIAL & CONFERENCE ORGANIZATION ACTIVITIES

2024	Local Host Team Chair of the 40 th International Symposium (Milan, 21 st -26 th July)
2019 - ...	Member of the Organising committee of International Sooting Flame Workshop
2016 - ...	Associate Editor of Combustion and Flame
2016	Colloquium Coordinator 36 th International Symposium on Combustion
2016 - 2018	Member of the committee of ASN (Scientific National Habilitation)
2015 – 2019	Member of the management committee of the COST Action CM1404
2014	Colloquium Co-Chair 35 th International Symposium on Combustion
2013	Member of the Silver medal committee of the Combustion Institute
2010	Colloquium Co-Chair 33 rd International Symposium on Combustion
2010 - 2014	Member of the management committee of the COST Action CM0901
2008 - 2019	Member of the Editorial Board of the Proceedings of Combustion Institute

INVITED PRESENTATIONS/LECTURES

2008	XXXI Combustion Meeting of the Italian Section of the Combustion Institute, Turin.
2011	5 th European Combustion Meeting (ECM2011) Cardiff (Wales)
2013	14th International Conference on Numerical Combustion, San Antonio (Texas).
2014	2nd International Conference of the Cluster of Excellence Tailor-Made Fuels from Biomass, Aachen (Germany)
2015	1st General Meeting & Smart Energy Carriers for Power, Industry and Engines Workshop, CERTH Conference center Thessaloniki (Greece) 26–28 AUGUST
2016	KAUST Future Fuel Workshop, KAUST (Saudi Arabia) 7-9 March
2016	21st International Symposium on Analytical and Applied Pyrolysis (PYRO 2016), Nancy, (France) 9-12 May
2016	International Combustion Institute Summer School on Near-Wall Reactive Flows 6th – 10th June, Bensheim, Germany
2017	International Bunsen Discussion Meeting: “Chemistry and Diagnostics for Clean Combustion”, Bielefeld (Germany), June 21–23
2017	Tenth Mediterranean Combustion Symposium, Napoli (Italy), 17 – 21 September
2018	2nd International Workshop on Oxy-Fuel Combustion, Bochum (Germany), 14 – 15 February
2018	4th International Sooting Flame (ISF) Workshop, Dublin 27-28 July
2019	International conference “STATISTICAL THERMODYNAMICS AND CHEMICAL KINETICS: FAR AWAY FROM EQUILIBRIUM”, 25-26 June, ACCADEMIA NAZIONALE DEI LINCEI, Rome (Italy)
2021	International Combustion Institute Summer School on Near-Wall Reactive Flows 7th – 10th June, Bensheim, Germany
2022	International workshop “The role of renewable synthetic fuels and combustion technologies in the energy transition” May 5th-6th, 2022, Brussels, Belgium.
2022	Summer school on energy Giacomo Ciamician, Kreuzbergpass, Sexten (BZ), Italy, June 13th – 17 th
2022	Tsinghua-Princeton-CI Summer School on Combustion: course on Combustion Chemistry and Kinetic Mechanism Development, July 11-15

PROJECT COORDINATION

Project coordinator or local leader of several European and Italian National Projects. He is also funded by many different Italian and international companies and research centers (like ENI, Riello, ENEL, Kaust, NETL)