The Combustion Institute 5001 Baum Boulevard, Suite 644 Pittsburgh, PA 15213-1851 1.412.687.1366 office@combustioninstitute.org

Calendar of Events

April 7, 2025 - April 10, 2025 12th European Combustion Meeting McEwan Hall The University of Edinburgh Edinburgh, EH8 9AG

The Technical Program will be held throughout the week.

VENUE CHANGE NOTICE: Due to overwhelming demand, a venue change has been made to accommodate the record number of submissions. This has also resulted in a change to the dates of the event to 7-10 April 2025.

The British Section of the Combustion Institute is organizing the 12th European Combustion Meeting (ECM), which will take place in Edinburgh from 7th to 10th April 2025. The ECM is a forum of knowledge transfer in the field of combustion science and related scientific disciplines.

The three-day conference will include five invited lectures and five poster presentations that will cover a wide variety of combustion-related topics. This conference provides a wonderful opportunity for academics and those in industry to gather for insightful discussions in combustion science. The ECM anticipates welcoming over 600 participants from countries across Europe and beyond. The ECM 2025 will reach its maximum capacity at 750 delegates.

Each poster submission will require an abstract submission. Poster abstracts will be reviewed by the organizing committee, and upon acceptance, authors will be asked to submit an 8-page manuscript, which can be submitted to the ECM Track or ECM-PROCI Track. Both tracks are intended to facilitate poster discussions. ECM Track manuscripts will not be published, while ECM-PROCI Track manuscripts will undergo consideration for publishing in the Special Issue of PROCI.

Please see the ECM 2025 website (www.ecm2025.eng.ed.ac.uk) for further information about the conference including registration, venue, accommodation, and more. We look forward to welcoming you to Edinburgh in April 2025!

Dutch Section of The Combustion Institute Webinar on: Iron Powder Reduction and Cyclabilit

01:00 PM - 02:00 PM CET combustioninstituteNL@gmail.com Date: 11 April 2025, 13:00-14:00 CET

Title: Iron Powder Reduction and Cyclability for a Sustainable Energy Future

Speaker: Giulia Finotello, Eindhoven University of Technology, Eindhoven Netherlands

Abstract: The transition to a sustainable energy system requires innovative solutions for energy storage and reuse. Iron powder is a promising energy carrier that can store renewable energy in a dense, stable and transportable form. By reducing iron oxides using clean energy sources, metallic iron can be regenerated and later combusted to release heat on demand. Unlike fossil fuels, iron burns without producing CO? and its combustion products—solid iron oxides—can be collected and recycled, enabling a fully circular energy cycle.

At Eindhoven University of Technology, we are pioneering research on the efficient and carbon-free regeneration of iron oxide. Our work focuses on three key reduction technologies: hydrogen reduction in fluidized beds, electrochemical reduction and flash reduction. Hydrogen reduction offers a large-scale, fossil-free regeneration route, electrochemical reduction provides a direct and renewable electricity-driven process and flash reduction is an emerging technique that achieves fast iron oxide conversion at high temperatures with improved efficiency. Our experiments demonstrate that iron powder can undergo multiple combustion-reduction cycles while maintaining stable performance. Over ten cycles, particle size distribution remains consistent and the energy storage efficiency reaches approximately 86%, highlighting the feasibility of iron powder as a durable energy carrier. However, challenges such as particle sticking and morphology changes during high-temperature reduction must be addressed to enhance process stability.

By refining iron powder regeneration techniques and improving cyclability, we are driving the development of a scalable and circular energy system. Our research contributes to the decarbonization of industrial processes and offers a reliable solution for bridging the gap between intermittent renewable energy production and continuous energy demand.

You can join the webinar here.

Registration is recommended by sending an email to combustioninstituteNL@gmail.com in case updates have to be sent out.

May 12, 2025 - May 15, 2025

47th Annual Meeting of the Italian Section of the Combustion Institute (ASICI) Centro Congressi Le Benedettine, Università di Pisa

Piazza S. Paolo a Ripa D'Arno, 16

Pisa, 56125

A three-day meeting of the Italian Section of The Combustion Institute Rachele Lamioni,

rachele.lamioni@ing.unipi.it

The 47th Annual Meeting of the Italian Section of the Combustion Institute (ASICI) will take place in Pisa, Italy, from May 12–15, 2025, at the Centro Congressi Le Benedettine, Università di Pisa. The conference will bring together scientists, technologists, and engineers working in combustion research and related fields. Discussions will cover fundamental and applied aspects of combustion, including pyrolysis, gasification, fuel processing, and low-emission energy systems. Special focus will be given to net-zero emission technologies for energy and transportation. The program will feature plenary lectures, parallel oral sessions, a poster session, and an industrial round table, along with two key new initiatives:

"Women in Combustion" (WiC) Networking Event – For the first time, in alignment with initiatives promoted by the International CI, we will introduce a dedicated space for discussion and mentoring for young female students and researchers in combustion science.

Poster Session for Ongoing Research Projects – Participants will have the opportunity to showcase posters dedicated to ongoing projects (e.g., PRIN2022, PRIN2022 PNRR, EU projects). Those interested are invited to indicate the title and type of project in the registration form.

We strongly encourage Ph.D. students and early-career researchers to participate, as the best presentations delivered by students or young researchers will be awarded.

More information is available in the Call for Papers attached to this listing.

May 12, 2025 - May 15, 2025

2025 Canadian Section of the Combustion Institute Spring Technical Meeting University of Calgary

A multi-day meeting

xiaohang.fang@ucalgary.ca,

xiaohang.fang@ucalgary.ca

The University of Calgary invites you to join the Canadian Section of the Combustion Institute Spring Technical Meeting. The meeting will be held at the University of Calgary in Calgary, Alberta on May 12th-15th 2025. Please direct any questions regarding the Spring Technical Meeting to cics2025@combustion-institute.ca.

Important Dates:

March 29, 2025 – Registration opens April 19, 2025 – Final papers due

April 19, 2025 – Last day for early bird registration

More information is available here.

May 18, 2025 - May 22, 2025

15th Asia-Pacific Conference on Combustion (ASPACC 2025) Suntec Singapore Convention & Exhibition Centre

1 Raffles Boulevard

, 039593

This is a multi-day event.

ASPACC 2025 Organizing Committee,

information@kit-group.org

The 15th Asia-Pacific Conference on Combustion (ASPACC) will be held on 18 – 22 May 2025 at Suntec Singapore Convention & Exhibition Centre. It will be hosted by the Singapore Section of The Combustion Institute. With the theme of "build a zero-carbon and sustainable future", the ASPACC will feature a comprehensive technical program, reflecting the significant growth and evolving scope of combustion research in the Asia-Pacific region. Scientists and engineers are invited to submit high quality research papers to ASPACC-2025.

Important Dates

September 15, 2024: ASPACC paper submissions open

December 01, 2024: Deadline for contributed (4-page or 8-page) papers (23:59 PST) February 01, 2025: Notification of paper acceptance/rejection for presentation at

ASPACC

February 28, 2025: Deadline for submission of WiPP abstracts (23:59 PST)

March 14, 2025: Notification of WiPP abstract acceptance

Local Organizers:

Huangwei Zhang, National University of Singapore Wai Lee Chan, Nanyang Technological University, Singapore

Steering Committee Chairs:

Siew Hwa Chan, Nanyang Technological University, Singapore Assaad Masri, The University of Sydney

Technical Program Co-Chairs:

Huangwei Zhang, National University of Singapore

Zheng Chen, Peking University

Mani Sarathy, King Abdullah University of Science and Technology

If you are interested in organizing a satellite workshop before or after ASPACC in Singapore, please contact Prof. Huangwei Zhang (huangwei.zhang@nus.edu.sg) or Prof. Wai Lee Chan (chan.wl@ntu.edu.sg). For any questions regarding the paper submission process or conference details, please contact the ASPACC 2025 Organizing Committee at aspacc-information@kit-group.org or visit our website https://www.aspacc2025.org.

1st International Workshop on Combustion Kinetics: From Fundamentals to Applications Stephen Riady Centre

2 College Ave West

, 138607

08:00 AM - 05:15 PM EST

Prof. Yang Li, Northwestern Polytechnical University,

yang.li@nwpu.edu.cn

This workshop, being held in conjunction with the 15th Asia-Pacific Conference on Combustion (ASPACC), aims to gather leading researchers, academicians, and industry professionals to discuss the latest advancements and challenges in the field of combustion kinetics. The program will focus on a variety of topics that are at the forefront of combustion research and application:

Sustainable fuels combustion

Explore innovative strategies and technologies for sustainable fuels in a way that achieve decarbonization while maximizing efficiency, such as ammonia, hydrogen, methanol, and sustainable aviation fuels.

Propellants combustion and propulsion

Delve into the combustion kinetics of propellants and their implications for aerospace propulsion systems, including solid propellants, liquid and gas propellants, and novel propellants.

Combustion in extreme conditions

Examine the unique challenges and solutions associated with combustion in high-pressure, low-oxygen, and other extreme environments.

AI in combustion

Discover how artificial intelligence and machine learning are revolutionizing the prediction, control, and optimization of combustion processes, with focuses on combustion modeling and experiment.

Novel experimental techniques in combustion

Discuss the latest experimental approaches and tools used to analyze combustion processes, enhancing our understanding and capabilities in this critical field.

Registration

Fees: SGD 250 for teachers and postdocs, SGD 150 for students. Registration Links:

15th ASPACC

registration: https://client.conf-manage.com/aspacc-2025/aspacc2025reg/Site/Register

Workshop Only

Registration: https://client.conf-manage.com/aspacc-2025/aspacc2025workshops/Site/Rage 5/13 egister

Poster Submission

Please submit an A0-sized poster (841 \times 1189 mm / 33.1 \times 46.8 inches) along with a 200-500 word abstract to the workshop co-chair, Jieyao Lyu, at jieyaolyu@u.nus.edu. The abstract template is available on the workshop website. For inquiries, contact the Chair of the workshop, Prof. Yang Li (yang.li@nwpu.edu.cn).

Schedule: Allocate the whole day for poster sessions with interaction times during breaks.

Submission Deadline: 30 April 2025

More information is available on the workshop website.

May 25, 2025 - May 29, 2025

16th International Conference on Combustion Technologies for a Clean Environment Instituto Superior Técnico, Universidade de Lisboa

Av. Rovisco Pais Lisboa, 1049-001

09:00 AM - 06:00 PM GMT

Pedro J. Coelho, +351-218418194

pedro.coelho@tecnico.ulisboa.pt

The 16th International Conference on Combustion Technologies for a Clean Environment (Clean Air 2025) will take place in Lisbon, Portugal, from 25 to 29 of May 2025. The aim of the conference is to bring together graduate students, researchers, academics and industry experts to discuss the progress in the development of combustion technologies that minimize the environmental impact. Contributions on innovative combustion technologies that reduce the harmful emissions, low-carbon fuels, improvements in energy efficiency, post-combustion emission control systems and industrial applications are welcome.

The topics of the conference include but are not limited to:

Combustion fundamentals

Reaction kinetics

Combustion diagnostics

Computational methods

Laminar flames

Turbulent combustion

Droplets and spray combustion

Solid fuels combustion

Pyrolysis and gasification

Engines, gas turbines, boilers and furnaces

CO2 capture and sequestration

Pollutants formation and control

Alternative and low-carbon fuels

New combustion concepts

Machine learning applications to combustion

Detonations, fires and explosions

June 1, 2025 - June 5, 2025

13th Mediterranean Combustion Symposium Corfu Holiday Palace

A multi-day combustion symposium to be held in Corfu, Greece.

Contact the Organizers,

info@mcs2025.com

The Mediterranean Combustion Symposium (MCS) has become one of the primary regional conference series in combustion science and application. Combustion is a useful, beautiful, complex and interdisciplinary phenomenon, that has provided heat and power for ages and fascinated humans since the dawn of history. It now plays a prime role in decarbonisation of our energy system with the combustion of new low-carbon fuels, is important for wildfires and battery fires, and is a major research and development topic worldwide.

The 13th MCS will be held from 1-5 June 2025 in Corfu, Greece, and will feature a technical program of research and presentations, as well as a social program that includes a welcome reception, tour of Corfu and the Old Fortress, a gala dinner, and more!

Plenary Lecturers:

Dr. Mario Commodo (STEMS, Italy)

Prof. Andreas Dreizler (University of Darmstadt, Germany)

Dr. Daniel Mira (Barcelona Supercomputing Centre, Spain)

Dr. Paul Papas (RTX Technology Research Center, United States)

June 8, 2025 - June 13, 2025

13th International Conference on Chemical Kinetics (ICCK) Granlibakken Tahoe Resort

A multi-day conference on chemical kinetics info_icck2025@lbl.gov, info_icck2025@lbl.gov

The 13th ICCK in 2025 will concentrate on the multifaceted role of chemical kinetics as an enabling discipline. Chemical kinetics guides our description of chemical transformations in the Earth environment and beyond, enables discovering, characterizing, and controlling reactions from biological systems to combustion to catalytic transformations, and helps develop affordable, reliable, and secure energy technologies.

The abstract submission deadline for contributed oral presentations is Wednesday, March 26, 2025, 11:59 pm PT. Decisions will be sent out by Friday, March 28. The early bird registration deadline is Monday, March 31, 2025, 11:59 pm PT.

Confirmed plenary speakers:

Thomas Berkemeier, Max Planck Institute, Germany Annemie Bogaerts, University of Antwerp, Belgium Linda Broadbelt, Northwestern University, USA Mathew Evans, University of York, UK Sharon Hammes-Schiffer, Princeton University, USA Ronald Hanson, Stanford University, USA Frank Keutsch, Harvard University, USA

For the complete list of speakers see https://icck2025.lbl.gov/speakers

For further information and links see https://icck2025.lbl.gov/registration and https://icck2025.lbl.gov/abstracts

June 17, 2025 - June 19, 2025 IFRF Conference 2025: Sustainable and safe industrial combustion Sheffield Town Hall

Pinstone St

Sheffield, UK S1 2HH

08:30 AM - 06:00 PM GMT

Siobhan Green, +44 114 222 3656

administration@ifrf.net

On 17-19 June 2025 the International Flame Research Foundation will hold its first full, in-person conference since 2018.

The IFRF Conference 2025 will be the 20th conference since the IFRF was founded in 1948. As a world-renowned centre for steelmaking and high-temperature industries, as well as the current IFRF headquarters, Sheffield is an ideal venue to bring together delegates from across the world.

Who should attend?

The conference theme – 'sustainable and safe industrial combustion' – echoes the key objective of IFRF and has direct relevance to practitioners across a wide range of industrial sectors, including:

Power generation
Iron, steel and aluminium production
Oil and gas
Refining and petrochemicals
Glassmaking
Ceramics production
District heating and cooling
Cement production
Lime and minerals processing

June 22, 2025 - June 27, 2025

Princeton-Combustion Institute Summer School on Combustion and the Environment Princeton University

The multi-day CI-Summer School program will be held throughout the week. cefrc1@princeton.edu

The Princeton-Combustion Institute Summer School on Combustion and the Environment will be held at Princeton University from June 22-27 2025. The mission of the program is, "To provide the next generation of combustion researchers with a comprehensive knowledge in the technical areas of combustion theory, experiment, computation, fundamentals, and applications."

Applications are open until 14 March 2025 and, due to the advanced nature of the program, all participants are expected to have either passed the Ph.D. qualifying examination or have received a Master's degree by the time of enrollment. Undergraduate students will not be accepted. Lecturers (in alphabetical order):

Henry Curran, University of Galway, Ireland Moshe Matalon, University of Illinois Urbana-Champaign, USA Venkat Raman, University of Michigan, USA Nicole Riemer, University of Illinois Urbana-Champaign, USA Peter Sunderland, University of Maryland, USA Angela Violi, University of Michigan, USA

Any questions can be directed to cefrc1 @princeton.edu.

July 6, 2025 - July 12, 2025

2025 Tsinghua-Princeton-Combustion Institute Summer School on Combustion Tsinghua University

The program will be held throughout the week.

ccess@tsinghua.edu.cn

Our Mission

To provide the next generation of combustion researchers, engineers and technologists with comprehensive fundamental knowledge of the fluid mechanics and chemical kinetics of reacting flows, for application in issues related to energy and the environment.

The 2025 session will offer the following five courses:

Dynamics of Flames and Detonations in Premixed Gas Combustion Chemistry Turbulent Combustion Advanced Laser Diagnostics for Chemically Reacting Flows Applications of Combustion Science to Fire Safety July 21, 2025 - July 25, 2025

10th International Combustion Institute-Winter School University of Campinas (UNICAMP)

Av. Érico VerÃ-ssimo, 500, Cidade Universitária Zeferino Vaz (Campinas ? SP ? Brazil) São Paulo,

The Technical Program will be held throughout the week. ciws2025@unicamp.br,

ciws2025@unicamp.br

The 10th International Combustion Institute-Winter School (10th CI-WS) is an event that is being organized by the Combustion Institute (CI), the Brazilian National Combustion Network (RNC) and the Brazilian Society of Mechanical Sciences and Engineering (ABCM). This event has become a cornerstone for advancing combustion research and fostering collaboration.

The School provides a unique opportunity for researchers and students in the combustion field to gather for an enriching educational experience. Designed to strengthen the global combustion research community, the program of the event offers an educational experience led by esteemed biofuels and biomass combustion experts.

Our primary goal is to equip graduate and undergraduate students from Latin America and worldwide with in-depth knowledge of combustion science and energy technologies. To encourage international collaboration, all sessions will be conducted in English. The School will feature lectures, masterclasses, poster sessions, technical visits and vibrant social activities, fostering a promising environment for learning, networking and exchanging ideas.

July 27, 2025 - August 1, 2025

ICDERS 2025, 30th International Colloquium on the Dynamics of Explosions and Reactive Sys

A multi-day meeting on the Dynamics of Explosions and Reactive Systems
The International Colloquium on the Dynamics of Explosions and Reactive Systems
(ICDERS) has been held every two years since its founding in 1967 by N. Manson, A.K.
Oppenheim, and R. Soloukhin. The colloquium has been the premier international forum for the presentation of scientific contributions in the fields of explosions and unsteady combustion, where there is strong coupling between reaction and fluid mechanics.

The 30th edition of ICDERS will be held from July 27-August 1, 2025 in Ottawa, Canada.

For conference details, visit the ICDERS 2025 website: https://icders2025.com/

Plenary lecturers:

Prof. Kareem Ahmed, University of Central Florida, "Detonations from hypersonic propulsion engines to exploding stars"

Dr. Pascale Domingo, CORIA-CNRS, "Fast and capricious: combustion at high speed" Prof. Aamir Farooq, KAUST, "New perspectives on multi-mode and multi-scale shockwave dynamics"

Dr. Andrzej Pekalski, Shell U.K., "Learnings and advancements in understanding Vapour cloud explosions since Buncefield accident"

Invited Sessions:

Role of non-equilibrium effects in detonation waves (Prof. Xian Shi, University of California, Irvine)

Liquid phase detonations (Prof. Hai Wang, Stanford University)

Diffusive processes in gaseous detonations (Prof. Matei Radulescu, University of Ottawa)

October 14, 2025 - October 17, 2025 International Conference on Numerical Combustion (ICNC2025)

Roma Eventi - Fontana di Trevi

Piazza della Pilotta, 4

Rome,

This is a multi-day event focused on numerical combustion.

Organizing Secretariat,

icnc2025@jeangilder.it

The Twentieth International Conference on Numerical Combustion (ICNC2025) will be held from 14-17 October 2025 in the City of Rome, Italy. The Conference will continue the tradition as a premier global forum that brings together leading combustion researchers worldwide employing cutting-edge mathematical and computational methods to tackle many challenging problems in conventional and renewable fuel utilization for power and transportation. From the inaugural event in Sophia Antipolis, France, in 1985 to the latest rendition in Kyoto, Japan in May 2024, the ICNC has attracted many researchers in the academia, government laboratories and industry, in venues alternating between Europe, North America, and Asia. The conference program consists of invited talks and parallel sessions of mini-symposia on focused subjects as well as general contributed presentations aligned with the conference topics. The social program will include a welcome reception, a social dinner, and a guided tour of Rome.

Important Dates:

Mini-symposia proposal deadline: 31 January 2025

Abstract submission deadline: 15 April 2025 Early bird registration deadline: 15 July 2025

November 2, 2025 - November 7, 2025

3rd Asia-Pacific Combustion Institute-Summer School ValparaÃ-so-Viña del Mar

The program will be held throughout the week.

The main goal of the 3rd Asia-Pacific Combustion Institute Summer School is to introduce the combustion and fire safety community to fundamental combustion problems, focusing on studies of diffusion flames and their connection to large-scale fires. This year's school will emphasize the link between combustion theory and practical applications in both industrial settings and real fire scenarios, contributing to create and strengthen the links between different academic institutions and research groups focused in the Asia Pacific and South American areas.

Considering the nature of fires and flames, it has been long recognized that there is a gap between fire science and other disciplines within combustion. Particularly, the number of uncontrolled factors associated with fires have rendered many of the well-established techniques in combustion difficult to be applied. Therefore, the scientific direction of the APCISS-3 school aims to discuss and provide means to bridge this gap through the study of diffusion flames.

The Summer School is scheduled for 2-7 November 2025 in the coastal cities of Valparaíso - Viña del Mar. Workshops will be held at Universidad Técnica Federico Santa María.

More information is available in the flyer attached to this listing.