

2024 Belgium Section of The Combustion Institute Report
Section Website: <https://uclouvain.be/en/research-institutes/immc/bsci.html>
Section Chair: Alessandro Parente

Section officers and board members with titles:

- Officers
 - Alessandro Parente (President)
 - Francesco Contino (Vice-president)
- Board Members
 - Alessandro Parente (President)
 - Francesco Contino (Vice-president)
 - Ward De Paepe (Secretary)
 - Ivana Stankovic (Treasurer)
 - Sebastian Verhelst (Board member)
 - Julien Blondeau (Board member)

Members of the section:

Active Members	81
Non-Student Members	45
Student Members	36

Has the section revised its by-laws since 2022?

- No

Section meetings and workshops since 2022:

- Section Meetings
 - 28/6/2022, all members present. Instalment of the new board, definition of roles and work methodology and interactions with other sections.
 - February 2023, all members involved. Definition of the 40U40 initiative and finalisation of the Joint Meeting with the Italian Section.
- Workshops and Symposia
 - 26TH "JOURNEES D'ETUDES" of the Belgian Section, March 29-30, 2022.
 - International workshop on "The role of renewable synthetic fuels and combustion technologies in the energy transition", University Foundation, May 5th-6th, 2022, Brussels, Belgium.
 - Joint Meeting of the Belgian and Italian Sections of The Combustion Institute: Combustion for Energy Transition and Sustainable Mobility, May 28, 2023 - May 31, 2023.
 - von Karman Institute / ULB Lecture Series, Machine Learning for Fluid Mechanics: Analysis, Modeling, Control and Closures, 29 January - 2 February 2024.

Other activities:

- 40 under 40: E-lecture series on combustion, from April 2023, ongoing
 - The Belgian Section of the Combustion Institute is running the "40 under 40: E-lecture series on combustion", a lecture series featuring 40 young scientists and engineers who have done high-quality research in combustion. This lecture series is a

valuable opportunity to learn about the invited lecturers' past and current research activities and their vision for the future of combustion research. The 50-minute lectures are delivered via Zoom and recorded to create a collection that will be posted on a dedicated channel on YouTube.

Awards given by section:

- The "Award Adolphe Van Tiggelen" 2022 was granted to Florence Vermeire (UGent) for her excellent oral presentation and the scientific quality of her work on "Artificial intelligence and Automation in Chemical Kinetic Modeling".
- The Industrial Advisory Board 2022 award was granted to Sara Spano (UCLouvain) for her excellent oral presentation and the scientific quality of her work on "Numerical and experimental investigation of methane oxy-fuel combustion in HCCI engines".
- The Best Oral Presentation award at the Joint Meeting of the Belgian and Italian Sections of The Combustion Institute was granted to Alberto Procacci for his work "COMPUTED TOMOGRAPHY OF CHEMILUMINESCENCE USING A SPARSE SENSING FRAMEWORK"
- The Best Poster Award at the Joint Meeting of the Belgian and Italian Sections of The Combustion Institute was granted to Ruggero Amaduzzi for his work "AUTOMATED ADAPTIVE CHEMISTRY FOR LES OF TURBULENT FLAMES"

Special achievements attained by section members:

- Nominations of BSCI members as fellows of the CI 2024
 - Alessandro Parente, Université libre de Bruxelles, Belgium for pioneering advances in data-intensive frameworks for the development of sustainable combustion technologies
- Distinguished paper awards
 - Numerical Combustion
 - 2022: Manifold-informed state vector subset for reduced-order modeling
 - Kamila Zdybał, James C. Sutherland, Alessandro Parente
 - Stationary Combustion Systems
 - 2021: Digital twin of a combustion furnace operating in flameless conditions: reduced-order model development from CFD simulations
 - Gianmarco Aversano, Marco Ferrarotti, Alessandro Parente
- ERCOFTAC Da Vinci Prize 2023
 - Kamila Zdybał (Université libre de Bruxelles, Belgium)
 - Reduced-Order Modeling Of Turbulent Reacting Flows Using Data-Driven Approaches

Does your Section plan to organize the international Combustion Institute Summer School (CI-SS)?

- No

If you selected "Yes" which year will it be carried out?

- N/A

Other information you may want to report:

- N/A