

12th Mediterranean Combustion Symposium MCS-12



Luxor - Egypt
23-26 January 2023



Second Announcement - Update



www.mcsymposium.com

COMMITTEES

Program co-chairs

- **Dr. Federico Beretta**, Consiglio Nazionale delle Ricerche, Napoli – ITALY. Former Research Director at CNR. beretta@irc.cnr.it
- **Prof. Nevin Selçuk** Department of Chemical Engineering, Middle East Technical University, Ankara – TURKEY. selcuk@metu.edu.tr
- **Prof. Mohy S. Mansour**, Mechanical Power Engineering Department, Cairo University, Cairo – EGYPT. mansourm@aucegypt.edu
- **Prof. Andrea D'Anna**, Department of Chemical, Materials and Industrial Production Engineering, Università degli Studi di Napoli Federico II, Naples – ITALY. andrea.danna@unina.it

Advisory board

- **Prof. Ömer L. Gülder**, University of Toronto, Institute for Aerospace Studies, Toronto - Canada.
- **Prof. Dr. Görkem Külah**, Middle East Technical University, Chemical Engineering, Ankara - Turkey.
- **Prof. Assaad Masri**, University of Sydney, School of Aerospace Mechanical & Mechatronic Engineering, Sydney - Australia
- **Prof. Epaminondas Mastorakos**, Engineering Department, University of Cambridge, Cambridge - England.
- **Prof. William Robert**, Clean Combustion Research Center- King Abdullah University of Science and Technology –KAUST, Thuwal - Saudi Arabia.
- **Dr. Franco Tamanini**, Factory Mutual, Norwood - USA.

Local organizer

- The Egyptian Society for Renewable Energy (ESRE), www.esre-egypt.com

Twelfth Mediterranean Combustion Symposium Overview

The symposium is the twelfth in a series on combustion and related topics, held by the scientific communities from countries around the Mediterranean. The first Mediterranean Combustion Symposium was held in Antalya, Turkey, June 1999, the second took place in Sharm El-Sheikh, Egypt, January 2002, the third in Marrakech, Morocco, June 2003, the fourth in Lisbon, Portugal, October 2005, the fifth in Monastir, Tunisia, September 2007, the Sixth in Corsica, France, June 2009, the seventh in Chia Laguna, Cagliari, Sardinia, Italy, September 2011, the eighth in Cesme, Turkey, September 2013, the ninth in Rhodes, Greece, June 2015, the tenth in Napoli-Italy, September 2017, and the eleventh in Tenerife, Spain, June 2019.

The Symposium has grown in the years becoming an important conference in Combustion. The quality of many of the accepted papers is considered to be within the top published papers in most combustion journals. The objective of the conference is to give combustion scientists, particularly engineers and students from the Mediterranean area, the opportunity to get together for the dissemination of state-of-the-art advances in combustion research and to enhance future collaborative research activities between scientists from different geographic areas. All topics and all the scientific/technological approaches in the combustion field are pertinent to this Symposium.

The organizing committee and the colloquia co-chairs are composed of international experts in various disciplines of combustion.

The technical program will consist of invited lectures by eminent specialists from all over the world, oral presentation of the contributed papers and posters of the work-in-progress. A set of contributed papers will be selected for post-conference publication in well-known combustion journals as it was for the previous symposia.

The Symposium is structured so as to maximize contact and interactions and includes an interesting social program.

CONTRIBUTED PAPERS

Submission

Submit the full paper in PDF format through the link:

<https://mcsymposium.com/paper-submission-form/>

For any problem please contact us through “contact us” link on the website

<https://mcsymposium.com/contact-us/> or send an email to:

Prof. Mohy Mansour (Symposium Co-Chair)

Mechanical Power Engineering Department

Cairo University

Tel: +201221630863

mansour@niles.edu.eg; mansourm@aucegypt.edu

Instructions

Prospective authors please follow the instructions carefully before submitting a paper.

The instructions are on the web site:

<https://mcsymposium.com/paper-template/>

Deadlines

~~June 13th, 2022.~~ July 1st, 2022: Submission of full paper

August 5th, 2022: Notification of acceptance

Selection procedure

Authors are encouraged to indicate their choice of Colloquium topic. Colloquium Co-Chairs and Program Co-Chairs will coordinate review of the manuscripts in their topic area. They will review the papers or solicit and evaluate written reviews of the papers. For manuscripts that cannot be placed in one of the Colloquium areas, reviews will be coordinated by the Program Co-Chairs.

Publication

The accepted papers will be available during the Symposium on flash memory.

Papers, selected by a peer-review process, will be published in special issues of top journals as they were at the previous symposium.

For further information please visit our website

www.mcsymposium.com

WORK IN PROGRESS PRESENTATION/FLASH PRESENTATION

Work in Progress and/or Flash Presentation

Submit the abstract in PDF format through the link (select one option: WIP with flash presentation – WIP without flash presentation – Flash presentation only)

<https://mcsymposium.com/wip-submission-form/>

Instructions

The Symposium organizes 3 minutes flash presentations for the WIP. In addition, Flash presentations are also offered without WIP posters. The authors can submit: WIP poster without Flash presentation, or WIP poster with Flash presentation, or Flash presentation only. The title, the authors and their affiliations and the text must fit in one page typed single space with 12 pt Times New Roman font. The maximum size of the text must be 164x230 mm. Authors' names and affiliations must be centered under the title at the top of the page.

Deadlines

August 15th, 2022: Submission of abstract

August 29th, 2022: Notification of acceptance

Publication

The WIP and Flash presentations abstracts will be available during the Symposium on flash memory.

Selection procedure

The Program Committee Co-Chairs will select the appropriate works for poster and Flash presentations which will be carried out in parallel with oral Colloquia of Contributed Papers. Authors are encouraged to indicate their Colloquium choice during submission through the website.

PRE-CONFERENCE WORKSHOP

8th Workshop on Measurement and Computation of Turbulent Spray Combustion (TCS8), 22nd January 2023

For more details check the following website:

<http://www.waggutheil.iwr.uni-heidelberg.de/tcs/>

SYMPOSIUM COLLOQUIA

- **LAMINAR FLAMES**
Including experiments and modelling.
- **REACTION KINETICS AND REDUCED MECHANISMS**
Including the chemistry of hydrocarbons, biofuels, oxygenated fuels, and reduction methodologies.
- **POLLUTANT FORMATION AND CONTROL**
Including the physical and chemical processes affecting the formation, growth, and destruction of NO_x, SO_x, soot, PAH, dioxins, and other large molecules.
- **COMBUSTION DIAGNOSTICS**
Including the development and application of diagnostics for the understanding and control of combustion phenomena and radiative transfer.
- **TURBULENT COMBUSTION**
Including experiments, theory, and simulations applied to turbulent flames.
- **HETEROGENEOUS COMBUSTION AND PYROLYSIS**
Including fundamental aspects of pyrolysis, gasification, and combustion of solid fuels (e.g., coal, char, and biomass) as well as combustion of propellants and catalytic combustion.
- **STATIONARY COMBUSTION SYSTEMS and ENVIRONMENTAL IMPACT**
Including combustion in fluidized beds, incineration, utility boilers, plants and industrial applications.

- **FIRE and EXPLOSIONS**
Including fundamental aspects of fires as well as applications to building construction and urban/wildland fires.
- **ENGINE, GAS TURBINE AND SPRAY COMBUSTION**
Including simulations and experiments and novel processes and fuels for these applications.
- **CO₂ CAPTURE PROCESSES AND NEW COMBUSTION CONCEPTS**
Including oxy-fuel combustion, chemical looping combustion, gasification, and other novel processes.
- **ENERGY STORAGE AND ALTERNATIVE RENEWABLE FUELS**
Including the generation and combustion of renewable fuels, e.g. biogas, syngas, biodiesel, and ammonia. This colloquium also includes techniques of energy storage.

INVITED KEYNOTE SPEAKERS

- **KLAS ANDERSSON**
Chalmers University of Technology, Gothenburg, Sweden
 - Presentation title: "Industrial High-Temperature Processes - Development of Alternative Firing Strategies"
- **HENRY CURRAN**
National University of Ireland, Galway, Ireland
 - Presentation title: "Developing Detailed Chemical Kinetic Mechanisms for Fuel Combustion"
- **BASSAM DALLY**
King Abdullah University of Science and Technology, SA
 - Presentation title: "Hydrogen Peroxide Fuel Oxidation: Fundamentals and Applications"
- **AHMED GHONIEM**
Department of Mechanical Engineering, Massachusetts Institute of Technology
 - Presentation title: "Metal Combustion for Chemical Looping CO₂ Capture"
- **ABDURRAHAMN KHALIDI**
Chief Technology Officer of GE Power for Middle East, North Africa, South Asia
 - Presentation title: "Role of Hydrogen Combustion in the Decarbonization of Power Sector"
- **MOHY S. MANSOUR**
Mechanical Power Engineering Department, Cairo University, Egypt
 - Presentation title: "Combustion Stability"
- **AGUSTIN VALERA-MEDINA**
Cardiff School of Engineering, U.K
 - Presentation title: "Ammonia for Net Zero Combustion"
- **BRENT W. WEBB**
Department of Mechanical Engineering, Brigham Young University, Utah, USA
 - Presentation title: "The Spectral Line Weighted-Sum-of-Gray-Gases (SLW) Model for Prediction of Radiative Transfer in High Temperature Gases"

Registration

Deadline for early bird registration 31st August 2022

Full \$ 900

Students \$540

Late registration after 31st August 2022

Full \$ 1000

Students \$640

On-site registration

Full \$ 1150

Students \$740

Registration for accompanying persons

Full \$480

(\$360 without gala dinner)

(\$250 without gala dinner and lunches)

Registration fees include:

- **Participants:** Admission to technical sessions, conference kit, attendance certificate, coffee breaks, welcome cocktail, farewell cocktail, lunches, excursion, and Gala dinner.
- **Students:** Admission to technical sessions, conference kit, attendance certificate, coffee breaks, welcome cocktail, farewell cocktail, lunches, and excursion
- **Accompanying visitors:** lunches at the hotel, excursion, Gala dinner, welcome cocktail, and farewell cocktail.

Additional costs:

- \$20 Transfer from Luxor airport to hotel and return.

Venue

Steigenberger Nile Palace Luxor Hotel and Convention Center



<https://www.steigenberger.com/en/hotels/all-hotels/egypt/luxor/steigenberger-nile-palace>

For further information please visit our website: www.mcsymposium.com

Accommodation

Steigenberger Nile Palace Luxor Hotel and Convention Center (5-stars) [limited number of rooms are available. Early booking is recommended]

	In SGL US\$	In DBL US\$	In TPL US\$
Classic City View	88.0	49.0	37.0
Classic Patio View	107.0	59.0	43.0
Executive Patio View	136.0	72.5	53.0
Executive Nile View	154.0	82.5	59.0

The rates are BB per person per night.

Top attractions

- Luxor Temple 1.6 km
- Karnak Temple 4.3 km
- Deir el-Medina 5.4 km
- Valley of the Queens 5.9 km
- Tombe Thoutmes III 6.5 km

Pyramisa hotel Luxor 5-star (walk: 2 minutes to the venue)

<https://pyramisahotelluxor.com-egypt.com/en/>

Rates in US\$ are based on BB per person per night	Pyramisa
Single Room	66.0
Double Room	42.0
Triple Room	41.0

- Luxor Temple 1.7 km
- Karnak Temple 4.4 km
- Deir el-Medina 5.4 km
- Valley of the Queens 5.8 km
- Tombe Thoutmes III 6.4 km

Iberotel hotel Luxor 4-star (walk: 10 minutes to the venue)

<https://iberotelluxor.com-egypt.com>

Rates in US\$ are based on BB per person per night	Iberotel
Single Room	56.0
Double Room	41.0
Triple Room	40.0

Top attractions

- Luxor Temple 0.8 km
- Karnak Temple 3.5 km
- Deir el-Medina 4.9 km
- Valley of the Queens 5.5 km
- Tombe Thoutmes III 5.9 km

Registration Procedure

- Create a login account through the website (username and password)
- Login and go to “My Account” and then to “Registration & Accommodation” link
- Go to Registration link and select one option and proceed as instructed.
- You can add another registration for accompanying visitor. Total payment with an order number will appear during the registration and will be sent to you by email.
- Then transfer the payment for all registrations as instructed before the deadline. During the money transfer process, please add the order number given by the system during the registration procedure. You can pay the sum of both registration and accommodation together, but you MUST include both payments orders numbers during the money transfer process, see below.
- If you face any technical problem, please use the “contact us” link through the website.

Hotel Reservation Procedure

- Create a login account through the website (username and password) [if you did it during the registration above, you don't need another account. One should be enough for both registration and accommodation]
- Login and then go to “My Account” and then to “Registration & Accommodation”
- Go to Accommodation and select one option and proceed as instructed. You need to upload ID documents for you and accompanying visitor, if any.
- Then transfer the payment for the accommodation as instructed before the deadline. During the money transfer process, please add the order number given by the system during the hotel reservation procedure. You can pay the sum of both accommodation and registration together, but you MUST include both payments orders numbers during the money transfer process, see below.
- If you face any technical problem, please use the “contact us” link through the website. <https://mcsymposium.com/contact-us/>

Payment and money transfer

- Please check the payment terms and conditions of the MCS12 on the website [Payment-Terms-and-Conditions](#)
- Please transfer the total sum in US\$ for both registration and accommodation (the participant should cover all bank transfer fees) to the following bank account:

Bank Details:

- | | | |
|---|-----------------|-------------------------------------|
| • | Name: | CIB (Commercial International Bank) |
| • | Branch: | mall of Egypt |
| • | Account number: | 100043463254 |
| • | IBAN: | EG390010019800000100043463254 |
| • | Swift Code: | CIBEEGCX |

Note: a copy of the money transfer document MUST be sent to the “contact us”

<https://mcsymposium.com/contact-us/>, or the following emails:

mansourm@aucegypt.edu; esre@esre-egypt.com