# CALL FOR PAPERS

Extended deadline for submissions: **February 26th 2023**




## Online streaming

Americas, EMEA (Europe, the Middle East and Africa), Asia-Pacific sessions

*Source: Nemak Europe*

*Source: ecoMetals, Düsseldorf Fair*

# ONLINE CONFERENCE OVERVIEW

The WFO is proud to announce the first **Foundry Young Researchers and Early Career Professionals Conference** taking place in April 2023.

The conference is an outstanding opportunity to connect with young researchers and professionals in the **early stages of developing their careers in our industry**, and offers an agenda of **advanced technical research** in topics like **Casting Solutions, Digital Foundry or Circular Economy and Sustainibilty** presented by some leading young industry professionals.

The authors of the **3 Best Papers** from the conference, as selected by the **Scientific Board**, will be **awarded with an invitation to GIFA 2023 in Düsseldorf, Germany**, where they will make a **live presentation of their work to the industry at the event** , strengthening their contacts and **networking with the global foundry industry**.

# ONLINE CONFERENCE OVERVIEW

The conference will be held on a **digital platform on the World Wide Web** at **18th of April 2023**.

The **selected 20 lectures will be streamed in the form of recorded videos**. The conference is offered **three times during this day**. Starting in the time zone of Asia-Pacific (**APAC**), following by Europe, the Middle East and Africa (**EMEA**), and ending in **Americas**.

*We invite young researchers and early career professionals to submit proposals of scientific work and /or examples of best practice on the topics detailed on the following slides*

# 3 BEST PAPER AWARDS

Invitation to GIFA 2023 from 13th to 16th of June in Dusseldorf, Germany. (Accommodation and travel will be paid by sponsors).

Live presentation of the 3 best papers in the Conference Area of the GIFA meeting point (*booth of German Foundry Association*) and at the EcoMetals forum.

## Handover of the Awards
(first edition special awards)

- **Gold Award: 8.000 Euro**
- **Silver Award: 4.000 Euro**
- **Bronze Award: 2.000 Euro**

*All awards will be officially handed to the submitting authors, without prejudice to any external agreement by said authors with third parties*



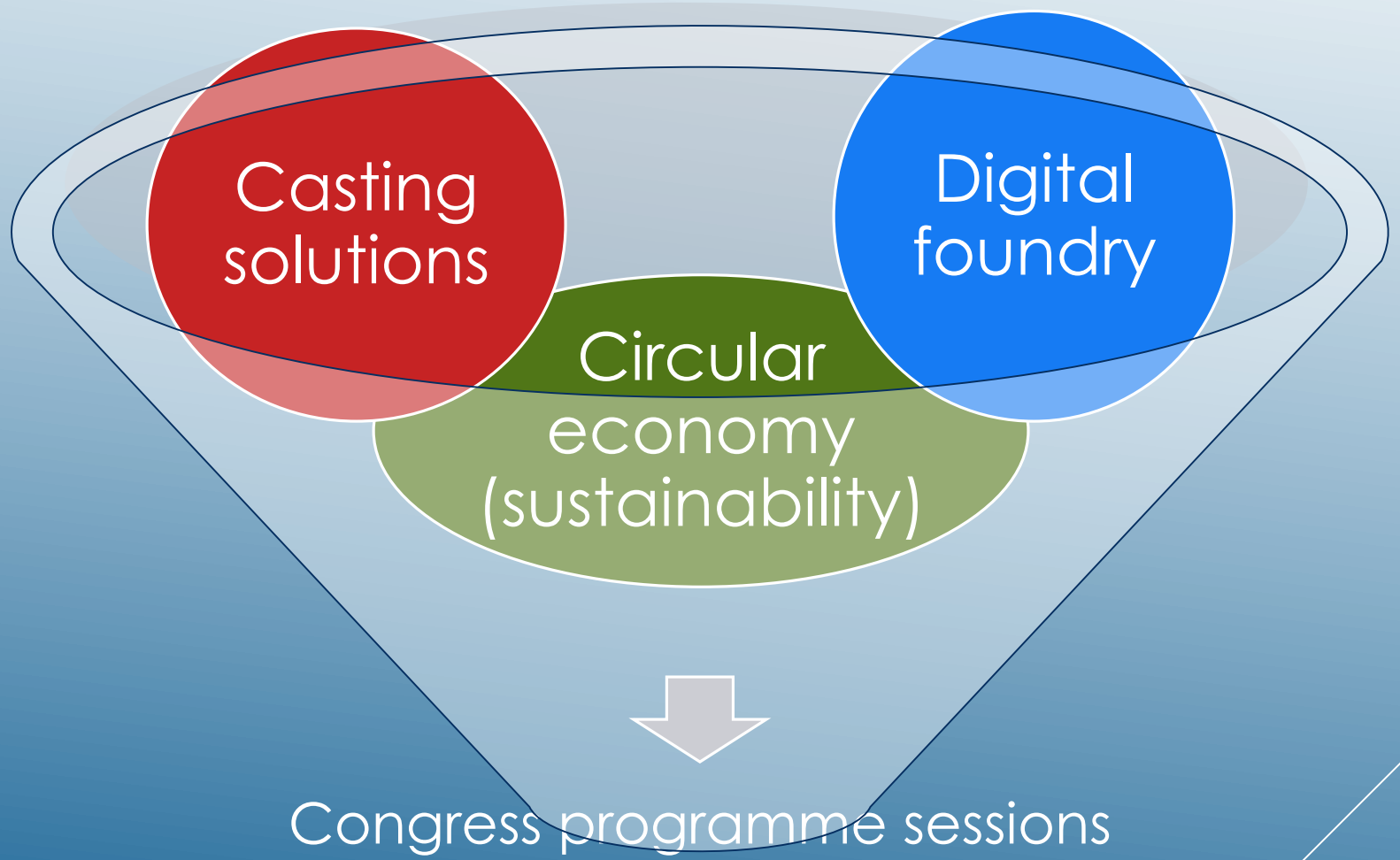

GIFA is the most important trade fair for foundry technology in the world
www.gifa.com
www.newcast.com/

# PROFILE OF AUTHORS TO APPLY TO THE CALL FOR PAPERS



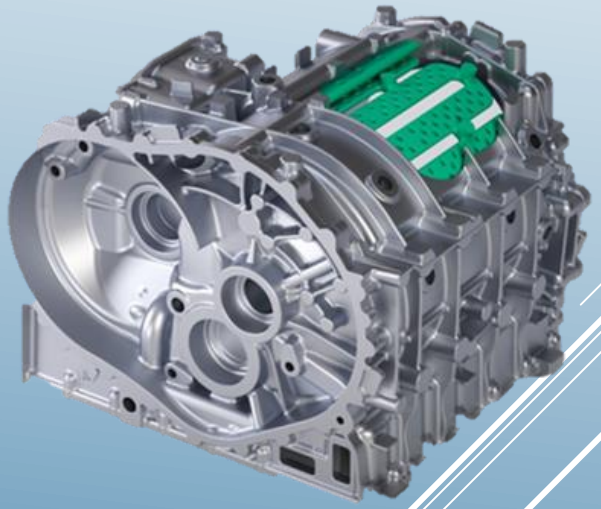
- Graduate Students who are enrolled on Masters courses directly related to the metal casting and metal-mechanical industry at the time of the abstract submission deadline.
- PhD students who are enrolled on their first PhD course at the time of the abstract submission deadline.
- Early Career Professionals and Researchers who work at companies, universities, research centers or knowledge centers.
- All candidates must be less than 35 years old.

# TOPICS FOR THE CALL FOR PAPERS



# TOPIC – CASTING SOLUTIONS

- High-quality components are characterized by high reliability, long service life, multifunctionality and complete recyclability. In addition, they should be able to be produced in an energy and resource-efficient manner and guarantee customers short delivery times. Cast components meet these requirements and have proven themselves in all sectors. Nevertheless, good solutions for high-quality casting materials, highly efficient casting processes and intelligent designs for combining different functions are constantly in demand.
- Market trends and changing boundary conditions are requiring specific developments in cast components for areas like E-mobility eg structural castings for automotive applications, or castings for green energy generation, and at the same time produced with lower energy consumption and a reduced $CO_2$ footprint, and with less waste.



*Source: Nemak Europe*

# TOPIC – DIGITAL METHODS AND ENGINEERING FOR FOUNDRY

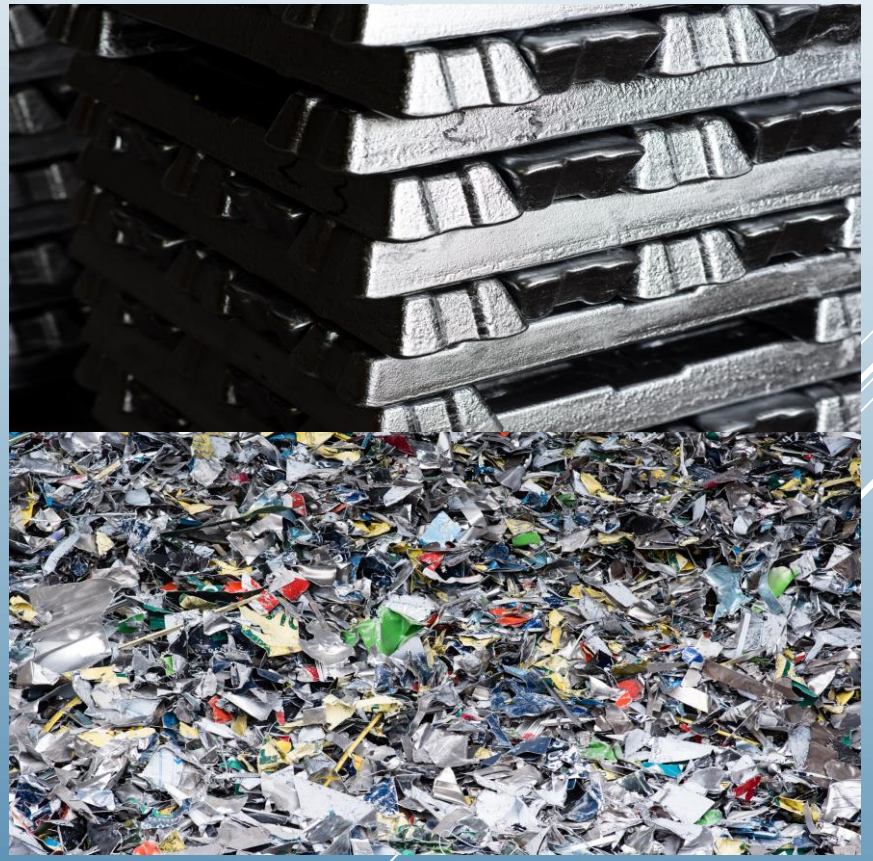
- The progress of digital methods and solution strategies is a main topic of research and development in manufacturing. Therefore, there is a need to improve the application of digital methods in many areas of the casting process.
- Examples include data driven analysis and quality assurance, data-based models to optimize the control of casting machines, use of artificial intelligence for design and process optimisation, and many more.
- The challenges for the casting industry are the robustness of sensors to generate and gather data, as well as reliability of systems, as well as the large variety and complexity of the factors that influence quality and process optimisation.



*Source: ecoMetals, Düsseldorf Fair*

# TOPIC – CIRCULAR ECONOMY AND SUSTAINABLE FOUNDRY

- The casting process is one of the most effective ways to get from the primary material to a final end product with the lowest possible energy input, enabling the recycling and re-use of metal alloys.
- An increase in high-quality recycling of mixed scrap from material composites and components at ‘end of life’ also poses new challenges for the entire process chain. Foundries face challenging tasks in the industry's transformation towards climate neutrality. It is not clear from which sources the required CO2-neutral energy demand will be met.
- Castings users also demand measures to meet the increasing requirements for life cycle assessments. There are no ready-made solutions for the diversity and complexity of these assessments



*Source: Institute of Cast Metals Engineers*

# DOCUMENTATION TO BE PROVIDED

extended date

**Call For Papers**: to apply please visit the abstract submission website indicated below and provide up to 26th of February:

- **2 minutes video presentation** explaining the main ideas in your work;
- **Abstract** (max. 500 words, 1 or 2 pictures).

**CLICK HERE TO ACCESS THE WEBSITE TO SUBMIT THESE DOCUMENTS**

If the Scientific Board accepts your work for a presentation in the event, you will receive in the beginning of March a request by mail for a **15 minutes video presentation.**
**This second video has to be sent** up to 31st March 2023.

# 2' VIDEO GUIDELINE FOR THE CALL FOR PAPERS

| | |
|---|---|
| **Submission deadline** | extended date<br>February 26th, 2023 |
| **File extension** | MP4, MOV • Audio must be embedded (1 single file) • Please check the sound and background noise |
| **Recording time** | 2 minutes presentation |
| **Language** | English (written and spoken) |
| **Layout of recording (examples)** | • a live image of the speaker explaining the main ideas of the work OR<br>• any of the other examples explained for the 15 minutes presentation |
| **Aspect ratio** | 16:9 (widescreen) • The aspect ratio is preferable but not required |
| **Resolution** | 1920 X 1080 • Please check the resolution of images and graphs in your presentation file |
| **File size** | Maximum 500MB • If the file size exceeds 500MB, please contact the secretariat at evawfo@gmail.com |
| **How to submit** | Upload through "My Submissions" of abstract submission website<br>• Before you submit the presentation video, check your recorded audio narration |

# 15' FULL VIDEO GUIDELINE FOR ACCEPTED AUTHORS

| | | |
|---|---|---|
| **Submission deadline** | March 31st, 2023 | |
| **File extension** | MP4, MOV | • Audio must be embedded (1 single file) • Please check the sound and background noise |
| **Recording time** | 15 minutes presentation | |
| **Language** | English (written and spoken) | |
| **Layout of recording (examples)** | • a presentation with a live image of the speaker in a separate window (similar to a video conference) OR<br>• a recording studio assembly with slides on screen and lecturer in the picture OR<br>• a recording of a live lecture in front of an auditorium (lecture hall, conference room, meeting room, etc.) (but the slides must be clearly visible and readable) | |
| **Aspect ratio** | 16:9 (widescreen) | • The aspect ratio is preferable but not required |
| **Resolution** | 1920 X 1080 | • Please check the resolution of images and graphs in your presentation file |
| **File size** | Maximum 500MB | • If the file size exceeds 500MB, please contact the secretariat at evawfo@gmail.com |
| **How to submit** | Upload through "My Submissions" of abstract submission website<br>• Before you submit the presentation video, check your recorded audio narration | |
| **How the session will go** | The recorded video will be broadcasted as announced in the final agenda of the event | |

# CALL FOR PAPERS Young Researchers and Early Career Professionals Conference

TIMELINE

| | |
|---|---|
| 26th of February | • Upload of a 2 minutes video and Abstract for Call for Papers |
| Beginning of March | • Selection of the 20 best papers by the Scientific Board |
| End of March | • Upload of a 15 minutes video of the final presentation |
| April 18th | • Virtual conference in one day |
| Mid of May | • Decision of the Scientific Board about 3 Best Papers |
| June (12-16th) | • GIFA live presentation of 3 Best papers<br>• Handover of the Awards |

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ABP INDUCTION

The WFO is proud to count on the support of some leading companies for the organization of this virtual conference, along with the continuous support of its Lifetime Legacy Sponsors.




# The World Foundry Organization

*The reference point for the global metal casting industry*

## *Thank you*

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