

VIRTUAL CONGRESS INCEIGHT CASTING C⁸

MARCH, 2 - 3, 2021



GENERAL INFORMATION

The congress incl. exhibition takes place virtually!

It is aimed at people from research & development, construction & design, production & quality assurance from mechanical and plant engineering, metal production and processing, vehicle construction and power generation.

Congress fees, virtual participation, 2 days including conference proceedings: per person: 350,00 Euro

Virtual exhibition fees: 950,00 Euro.

Exhibitor package includes individual graphic space, info desk, screen wall, brochure stands, profile pictures of virtual booth staff, digital customer approach, lead generation.

Information: www.inceight-casting.com/de/aussteller.html

Contact: anke.zeidler-finsel@lbf.fraunhofer.de

Moderator: Thomas Ranft, www.ranft.tv

Current information, registration and everything else about the congress can be found at www.inceight-casting.com

OPTIMIZED CAST PRODUCTS

Interdisciplinary design for high-performance cast components

»InCeight Casting« is the first congress for overarching exchange of experience and knowledge of all disciplines involved in the product life cycle „cast component“.

The aim is to develop a common understanding of the various requirements for high-performance and efficient cast products.

Network with experts from design and product development, fatigue strength, non-destructive component testing, foundry technology and simulation!



CONTACT



Congress manager

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Organizer

Fraunhofer-Institut für Betriebsfestigkeit und Systemzuverlässigkeit LBF, Bartningstraße 47, 64289 Darmstadt, www.lbf.fraunhofer.de

Partner



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TUESDAY, MARCH 2

- 09:30 Uhr **Welcome**
Dr. Christoph Bleicher, Fraunhofer LBF
Thomas Ranft, ranft tv
- 09:50 Uhr **Contribution to the determination and numerical evaluation of cyclic crack propagation in GJS materials**
Dr. Peter Trubitz, TU Bergakademie Freiberg
- 10:20 Uhr **Numerical prediction of toughness behaviour for a high silicon ductile cast iron**
Dr. Markus Könemann, RWTH Aachen
- 10:50 Uhr Short break
- 11:00 Uhr **From the prediction of hotspots to a verified material performance**
Dr. Jörg Sturm, MAGMA Gießereitechnologie GmbH
- 11:30 Uhr **Insight casting with non-destructive evaluation**
Miriam Weikert-Müller, Fraunhofer IZFP
- 12:00 Uhr Lunch break and networking
Interactive, moderated rooms on current research topics

- 13:00 Uhr **Correlating fatigue resistance with production quality**
Sven Nagel, Karlsruher Institut für Technologie
- 13:30 Uhr **Cast-control**
Dr. Frank Sukowski, Fraunhofer EZRT
- 14:00 Uhr **Slurry-based additive manufacturing of casting cores**
Joachim Vogt, Fraunhofer ISC
- 14:30 Uhr Short break
- 14:45 Uhr **Origin and effects of casting skins on the fatigue strength of nodular cast iron components**
Adalbert Kutz, RWTH Aachen
- 15:15 Uhr **Fatigue life assessment of cast steel components containing inner defects using a damage parameter based model**
Matthias Jung, Fraunhofer IWM
- 15:45 Uhr **Structural simulation of cast components based on computer tomography**
Dr. Karl-Michael Nigge, Volume Graphics GmbH
- 16:15 Uhr **Speed Dating** via „Wonder“
- 17:00 Uhr–
18:30 Uhr **Geschüttelt, nicht gerührt! – James Bond im Visier der Physik**
Prof. Dr. Metin Tolan, TU Dortmund

WEDNESDAY, MARCH 3

- 09:00 Uhr **Monitoring the product quality of cast parts using Barkhausen Noise technique – recent developments**
Dr. Ulana Cikalova, Fraunhofer IKTS
- 09:30 Uhr **Quality Requirement for the Service Durability of Cast Aluminium Wheels by the RFS-Method**
Marco Breitenberger, Fraunhofer LBF
- 10:00 Uhr **New perspectives for steel and iron in low-pressure pouring processes**
Markus Hagedorn, ABP Induction Systems GmbH
- 10:30 Uhr Break
- 11:00 Uhr **Notch fatigue and crack growth resistance of pearlitic ductile cast iron**
Dr. Michele Dallago, Fonderie Ariotti S.p.A.
- 11:30 Uhr **Binder Jetting Additive Manufacturing of Sand Moulds and Cores and its Newest Developments**
Martin Kaiser, ExOne GmbH
- 12:00 Uhr Lunch break with networking
Interactive, moderated rooms, including „Digitization in foundry technology“

- 13:00 Uhr **Panel discussion**
Moderator: Thomas Ranft
- 14:00 Uhr Short Break Pause
- 14:15 Uhr **Completing the numerical process chain in the foundry industry by software interfaces**
Nazar Adamchuk, Hochschule für angewandte Wissenschaften Ansbach
- 14:45 Uhr **Consideration of local material characteristics for the fatigue assessment of cast components**
Klaus Puchner, Engineering Center Steyr GmbH & Co KG
- 15:15 Uhr **Development of a validated design methodology for hollow rotor shafts of wind turbines made of EN-GJS-400-18-LT**
Julian Kirsch, Fraunhofer IWES
- 15:45 Uhr **Detection of quality features in hybrid cast components using NDT**
Frank Leinenbach, Fraunhofer IZFP
- 16:15 Uhr Think tank: „New projects“-workshop
- 16:45 Uhr **Zusammenfassung und Ausblicke**
Dr. Christoph Bleicher, Fraunhofer LBF
Thomas Ranft, ranft tv