



2ND

YOUNG RESEARCHERS Conference

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April 16th, 2024 - ONLINE



ALBERTUS-STIFTUNG



HÜTTENES-ALBERTUS

CLARIANT



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Program

CASTING SOLUTIONS

INFLUENCE OF ADDITIVES ON THERMAL EXPANSION OF SILICA USED IN SAND CORE PRODUCTION FOR SAND CASTING APPLICATIONS.

N Sai Deepak Kolli. *Jönköping University (Sweden)*

DEVELOPMENT OF COMPOSITION-TOLERANT SOLID SOLUTION STRENGTHENED FERRITIC DUCTILE IRON (SSFDI) VIA DESIGN OF EXPERIMENTS (DOE).

Sohail Mansoor. *Technische Universität Clausthal (Germany)*

EFFECT OF CR ADDITION TO THE MWCI IN HIGH-TEMPERATURE ABRASIVE CONDITION.

Mohammad Jobayer Huq. *Muroran Institute of Technology (Japan)*

THERMAL MANAGEMENT OF PERMANENT MOLDS.

Cheolmin Ahn. *University of California, Irvine (United States)*

THERMODYNAMIC ANALYSIS AND IMPACT OF WATER QUENCHING ON MICROSTRUCTURE AND MECHANICAL PROPERTIES OF HIGH SILICON DUCTILE IRON.

Betto David Joseph. *Foundry Institute, RWTH Aachen (Germany)*

ELECTROSLAG OVERFLOW CASTING.

Heng Cao. *National Key Laboratory of Advanced Casting Technologies (China)*

INTERDIFFUSION AND MARTENSITIC TRANSFORMATION IN CHEMICALLY COMPLEX SHAPE MEMORY ALLOYS AND RELATED SUB-SYSTEMS PRODUCED BY CASTING.

Chukwuemeka Lucky Ihemaguba. *Technische Universität Clausthal (Germany)*

SPT STUDY OF SPEHROIDAL GRAPHITE DEGENERATION IN CAST IRON COMPONENTS.

Ibon Miguel. *Azterlan Metallurgy Research Centre (Spain)*

3-D MICROSTRUCTURE SIMULATIONS OF DUCTILE CAST IRONS AND EVALUATION OF HOMOGENIZED MECHANICAL PROPERTIES.

Rahul Nellissery Rajan. *Access e.V. (Germany)*

PREDICTION OF SOLIDIFICATION CRACKING IN AL-MG DIE CASTING ALLOYS USING FLOW SOLIDIFICATION AND THERMAL STRESS ANALYSIS.

Takumi Kumaki. *Waseda University (Japan)*

Program

DIGITAL METHODS AND ENGINEERING FOR FOUNDRY

OPTIMIZATION OF T5 HEAT TREATMENT IN HIGH PRESSURE DIE CASTING OF AL-SI-MG-MN ALLOYS BY USING AN IMPROVED KAMPMANN-WAGNER NUMERICAL (KWN) MODEL.

Jianyue Zhang. *The Ohio State University (United States)*

MODELAN: AI BASED FOUNDRY PROCESS OPTIMIZATION TECHNOLOGY.

Andrés Pérez. *Azterlan Metallurgy Research Centre (Spain)*

MULTI-SCALE MODELING AND SIMULATION OF LOW PRESSURE DIE CASTING OF ALUMINUM ALLOYS.

Yunxiang Tan. *Tsinghua University (China)*

FEEDBACK DRIVEN CHARGE OPTIMIZATION & CORRECTION FOR NON-DIGITIZED FOUNDRIES.

Monish Kumar V R. *NowPurchase (India)*

PREDICTION OF WARPAGE DEFORMATION OF CASTING FLANGE BY FEM THERMAL STRESS ANALYSIS USING REVISED DRUCKER-PRAGER MODEL OF GREEN SAND MOLD.

Yasuhiko Okimura. *Waseda University (Japan)*

ULTRASONIC TREATMENT OF MOLTEN ALUMINUM FOR MICROSTRUCTURAL MODIFICATION. **Raquel Fierro Jaime.** *University of California Irvine (United States)*

CIRCULAR ECONOMY AND SUSTAINABLE FOUNDRY

MICROWAVE HARDENING OF SOLID INORGANIC FOUNDRY BINDER.

Nurul Anwar. *Aalto University (Finland)*

TRANSFORMATIVE TECHNOLOGY FOR GREEN CASTING -- ULTRA-HIGH RECOVERY RATE FROZEN SAND MOLDS.

Jianpei Shi. *Nanjing University of Aeronautics and Astronautics (China)*

THE UTILIZATION OF CASTING WASTES IN ALTERNATIVE INDUSTRY.

Ahment Buğra Keyvankli. *Ferro Döküm Sanayi Ve Dış Ticaret A.Ş. (Turkey)*

UPCYCLING LOW-VALUE POST CONSUMER ALUMINUM SCRAP.

Shrivatsav Shankar. *University of California Irvine (United States)*

Broadcasting times

ASIA-PACIFIC

CET time
START: 1:00 AM
CLOSURE: 8:30 AM

EMEA

CET time
START: 8:30 AM
CLOSURE: 4:00 PM

AMERICAS

CET time
START: 4:30 PM
CLOSURE: 12:00 AM



Registration & fees

Registration is open at: <https://wfoyc24.com>



Student	10 EUR
PhD Students	20 EUR
Early Career Professionals & Researchers (< 35 Years)	50 EUR
Engaged with WFO (*)	50 EUR
Others from WFO Member Country	100 EUR
Others from Non-WFO Member Country	200 EUR

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