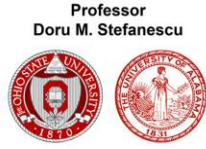




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International
Journal
of
Metalcasting



The 3rd Carl R. Loper Conference on Processing of Metallic Materials through Casting and Solidification

Braşov - ROMANIA
September 22 - 25, 2024

PROGRAM

Organized by

Transilvania University of Brasov (www.unitbv.ro/)

Professor Doru M. Stefanescu

International Journal of Metalcasting (link.springer.com/journal/40962)

Romanian Foundry Technical Association (www.foundry-attr.ro/)

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Thomas Prucha, Conference Chairman

Editor-in-Chief for The International Journal of Metalcasting (tprucha@sbcglobal.net)

Doru M. Stefanescu, Conference Vice-chairman

The University of Alabama and Ohio State University (stefanescu.1@osu.edu)

Mircea H. Tierean

Professor and President of the University Senate, Transilvania University of Brasov (mtierean@unitbv.ro)

Ion A. Băcanu

Vice-president Romanian Foundry Technical Association (ibacanu@huettenes-albertus.ro)

Local Organizing Committee

Daniel Munteanu

Professor and Vice-Rector of Transilvania University of Brasov, Romania (danielmunteanu@unitbv.ro)

Alexandru Pascu

Professor and Dean of the Materials Science and Engineering Faculty, Transilvania University of Brasov, Romania (alexandru.pascu@unitbv.ro)

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Professor and Dean of the Materials Science and Engineering Faculty, National University of Science and Technology Politehnica of Bucharest, Romania (radu.stefanoiu@upb.ro)

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Professor and Dean of the Materials and Environmental Engineering Faculty, Technical University of Cluj Napoca, Romania (catalin.popa@stm.utcluj.ro)

Dorin Todeasa

General Manager S.C. Saturn S.A. Alba Iulia, Romania (dorin_todeasa@saturn-alba.ro)

Arthur Olah

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Liana Sanda Baltas

Professor and Vice-dean of the Materials Science and Engineering Faculty, Transilvania University of Brasov, Romania (baltas@unitbv.ro)

Tibor Bedo

Associated Professor, Transilvania University of Brasov (bedo.tibor@unitbv.ro)

Aurel Crisan

Professor, Transilvania University of Brasov, Romania (crisan.a@unitbv.ro)

Iuliana Gheorghita

Lecturer, Transilvania University of Brasov, Romania (iuliana.gheorghita@unitbv.ro)

Teodor Machedon Pisu

Professor, Transilvania University of Brasov, Romania (tmache@unitbv.ro)

Ioan Milosan

Professor, Transilvania University of Brasov, Romania (milosan@unitbv.ro)

Edit Roxana Moldovan

Lecturer, Transilvania University of Brasov, Romania (edit.moldovan@unitbv.ro)

Mihai Alin Pop

Researcher, Transilvania University of Brasov, Romania (alinpma@yahoo.com)

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Conference Venue

Braşov is situated in the central part of the country being considered the second most important town in Romania. Located 160 km from Bucharest (Romania's capital), Braşov is surrounded by the Carpathian Mountains, being in the middle of the country at the crossroads of the Eastern Carpathian and the Southern Carpathians. Across the mountains to the South and East there are Wallachia and Moldavia, to the West the Banat region and to the North the rolling hills of Northern Transylvania.

The 3rd Carl R. Loper Conference on Processing of Metallic Materials through Casting and Solidification will be held at Sergiu T. Chiriacescu Aula, 41A Iuliu Maniu Str., Braşov, ROMANIA.

Program (Outline)

Sunday, 22.09.2024

18.00: Registration (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

19.00: Welcome cocktail (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

Monday, 23.09.2024

9.00: Registration (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

9.30: Opening ceremony (Main Hall, Brasov, 41A Iuliu Maniu Str.)

10.15: Plenary lectures I (Main Hall, Brasov, 41A Iuliu Maniu Str.)

11.30: Coffee break (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

12.00: Plenary lectures II (Main Hall, Brasov, 41A Iuliu Maniu Str.)

13.00: Lunch (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

14.00: Plenary lectures III (Main Hall, Brasov, 41A Iuliu Maniu Str.)

15.45: Coffee break (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

16.15: Plenary lectures IV (Main Hall, Brasov, 41A Iuliu Maniu Str.)

18.15: Dinner (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

Tuesday, 24.09.2024

9.00: Plenary lectures V (Main Hall, Brasov, 41A Iuliu Maniu Str.)

10.45: Coffee break (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

11.15: Plenary lectures VI (Main Hall, Brasov, 41A Iuliu Maniu Str.)

12.45: Frugal lunch (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

13.30: Tour: Fascinating Brasov County, Dracula's Castle and Informal Dinner

Wednesday, 25.09.2024

9.30: Plenary lectures VII (Main Hall, Brasov, 41A Iuliu Maniu Str.)

10.45: Coffee break (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

11.15: Plenary lectures VIII (Main Hall, Brasov, 41A Iuliu Maniu Str.)

12.45: Lunch (Aula's Foyer, Brasov, 41A Iuliu Maniu Str.)

13.45: Plenary lectures IX (Main Hall, Brasov, 41A Iuliu Maniu Str.)

19.30: Closing Ceremony and Farewell Dinner (ARO Hotel)

Program (detailed)

Monday, 23.09.2024

Aula's Foyer, Brasov, 41A Iuliu Maniu Str.

9.00: Registration

Main Hall, Brasov, 41A Iuliu Maniu Str.

Opening Ceremony

9.30: Welcome messages

Professor **Doru M. Stefanescu**, Conference Vice-chairman

Professor **Daniel Munteanu**, Vice-rector of Transilvania University of Braşov

Dr. **Ion A. Băcanu**, Romanian Foundry Technical Association, Hüttenes-Albertus group

10.15: Plenary lectures I

Chairperson: Doru M. Stefanescu, University of Alabama and Ohio State University, USA

10.15: **K.01. The Foundry Processes. From Art to Science**

R. Suárez, G. Zarrabeitia, J. Nieves, A. Zabala, AZTERLAN, Basque Research and Technology Alliance (BRTA), Durango, Bizkaia, Spain

J. Fesch, F. Vilela, AAPICO, Maia, Águeda, Portugal

11.00: **L.07. Multiscale Simulation of Directed Energy Deposition for Duplex Stainless Steel**

S. Gouttebroze, V. Fachinotti, X. Ren, SINTEF Industry, Oslo, Norway

Aula's Foyer, Brasov

11.30: Coffee break

Main Hall, Brasov

12.00: Plenary lectures II

Chairperson: John Campbell, University of Birmingham, UK

12.00: **L.11. Effect of Centrifugal Casting Parameters on Microstructure of Stainless-Steel Tube**

B. Bauer, K. Jurković, University of Zagreb, Croatia

S. Kastelic, P. Mrvar, University of Ljubljana, Slovenia

12.30: **L.12. Characterization of Cast Co-Cr-Mo Alloys for Medical Devices**

J.C. Mirza-Rosca, Las Palmas de Gran Canaria University, Spain

Transilvania University of Brasov, Romania

S. Brito-Garcia, Las Palmas de Gran Canaria University, Spain

Aula's Foyer

13.00: Lunch sponsored by Heraeus Electro-Nite Romania

Main Hall, Brasov

14.00: Plenary lectures III

Chairperson: Hideyuki Yasuda, Kyoto University, Japan

14.00: K.02. Powertrain Trends: The Outlook for Cast Iron

S. Dawson, SinterCast, Sweden

14.45: L.01. Slightly Irregular Spheroidal Graphite - Typical Graphite Morphology for High-Si Ductile Cast Irons

I. Riposan, D.E. Anca, S. Stan, I. Stan, E. Stefan, M. Chisamera, National University of Science and Technology Politehnica of Bucharest, Romania

15.15: L.06. Microstructure and Wear Behavior of the Ti-alloyed Gray Irons

S. Boonmee, Suranaree University of Technology, Thailand

Aula's Foyer, Brasov

15.45: Coffee break

Main Hall, Brasov

16.15: Plenary lectures IV

Chairperson: **Julian Riposan**, National University of Science and Technology Politehnica of Bucharest, Romania

16.15 L.24. Preliminary Study of High Alloyed Cast Irons with High Entropy Design Concept

H. Tian, KSB GIW Inc. Grovetown, GA, USA

16.45: L.16. Structural Refinement of Austempered Ductile Iron (ADI)

A. Nofal, CMRDI, Cairo, Egypt

17.15: L.20. Effect of the Ni Content on Structure and Magnetic Properties of Austenitic Ductile Iron Castings

M. Bork, AGH University of Krakow, Poland

R. Chulist, Institute of Metallurgy and Materials Science, Polish Academy of Sciences, Krakow, Poland

M. Górný, AGH University of Krakow, Poland

17.45: L.21. Austempered Ductile Iron Castings Reinforced with TiC Particles Obtained by SHSB Reaction

J. Marosz, M. Górný, M. Kawalec, AGH University of Krakow, Poland

R. Chulist, Institute of Metallurgy and Materials Science, Kraków, Poland

G. Angella, Research Institute CNR-ICMATE, DSCTM, Milano, Italy

Aula's Foyer, Brasov

18.15: Dinner

Tuesday, 24.09.2024

Main Hall, Brasov

9.00: Plenary lectures V

Chairperson: **Manuel Castro-Román**, Cinvestav Saltillo, Mexico

9.00: K.03. Time-resolved X-ray Imaging and Diffractometry of Ferrite-Austenite Transformation Following Ferrite Solidification in Steels

H. Yasuda, Kyoto University, Japan

9.45: L.14. Assessment of Section Sensitivity of 4.2%wt. Si Ductile Iron Based on Tensile Flow Behavior Analysis

G. Angella, Research Institute CNR-ICMATE, Milano, Italy

F. Zanardi, Zanardi Fonderia SpA, Minerbe, Italy

10.15: L.18. Effect of Solidification Time and Carbon Content on Microstructure, Thermal Conductivity and UTS of Lamellar Graphite Iron

V. Fourlakidis, *B. Domeij*, Jönköping University, Sweden

J. Eriksson, Volvo Technology AB, Sweden

A. Diószegi, Jönköping University, Sweden

Aula's Foyer, Brasov

10.45: Coffee break

Main Hall, Brasov

11.15: Plenary lectures VI

Chairperson: **Marcin Górný**, AGH University of Krakow, Poland

11.15: L.22. Laboratory Production and Characterization of Composed Foam Casts Made of Biodegradable Zn Alloy and NaCl Salt

P. Mrvar, *M. Petrič*, University of Ljubljana, Slovenia

S. Kastelic, TC-Livarstvo, Ljubljana, Slovenia

H. Palkowski, TU Clausthal, Germany

11.45: L.02. Cast Structures and Their Susceptibility to Failure

R. Ruxanda, Copeland, Sidney, USA

12.15: L.23. Comparative Study of the Metallurgical Quality, Microstructure and Mechanical Properties of Primary and Secondary AlSi7Mg(Fe) Aluminium Alloys

A. Baquedano, *R. Suarez*, *I. Lizarralde*, *E. Barbarias*, *S. Orden*, AZTERLAN, Basque Research and Technology Alliance (BRTA), Durango, Bizkaia, Spain

Aula's Foyer, Brasov

12.45: Frugal lunch

Bran & Poiana Brasov

13.30: Tour: Fascinating Brasov County, Dracula's Castle (Bran)

Informal Dinner sponsored by Lixland Romania (Poiana Brasov)

Wednesday, 25.09.2024

Main Hall, Brasov

9.30: Plenary lectures VII

Chairperson: **Giuliano Angella**, Research Institute CNR-ICMATE, Milano, Italy

9.30: K.04. Graphite Nucleation on Silicate Phases

T. Skaland, Elkem Silicon Products, Kristiansand, Norway

L. Michels, Elkem Silicon Products, Kristiansand, Norway

Norwegian University of Science and Technology, Trondheim, Norway

10.15: L.19. Preventing Graphite Degeneration with Fluorine-Free Feeders

M. Pesci, HA Italia, Vicenza, IT

Aula's Foyer

10.45: Coffee break

Main Hall, Brasov

11.15: Plenary lectures VIII

Chairperson: Primož Mrvar, University of Ljubljana, Slovenia

11.15: L.13. Effect of Niobium Content and the Inoculation on the Microstructure and the Thermal Analysis of a Hypoeutectic Cast Iron

D.E. Facundo-Flores, L.F. de Santiago-Mendez, M. Castro-Román, M. Herrera-Trejo, Cinvestav Saltillo, Saltillo, Mexico

11.45: L.10. Thermal Analysis – Yesterday and Today

A. Udroi, Metallurgical Quality Assistant, Italy

D.M. Stefanescu, University of Alabama and Ohio State University, USA

12.15: L.17. The Use of Thermal Analysis for Generation of Fraction Solid Evolution in Al-Si alloys

E.S. Kweon, D.H. Roh, AnyCasting Software Co., Ltd., Seoul, Republic of Korea

D.M. Stefanescu, University of Alabama and Ohio State University, USA

Aula's Foyer, Brasov

12.45: Lunch

Main Hall, Brasov

13.45: Plenary lectures IX

Chairperson: Branko Bauer, University of Zagreb, Croatia

13.45: L.08. Modelling of Ferro-Silicon-Magnesium dissolution in iron melt

S. Gouttebroze, A. Marthinsen, SINTEF Industry, Oslo, Norway

14.15: K.05. The Fracture of Metal Castings

J. Campbell, University of Birmingham, UK

ARO Hotel

19.30: Closing Ceremony and Farewell Dinner



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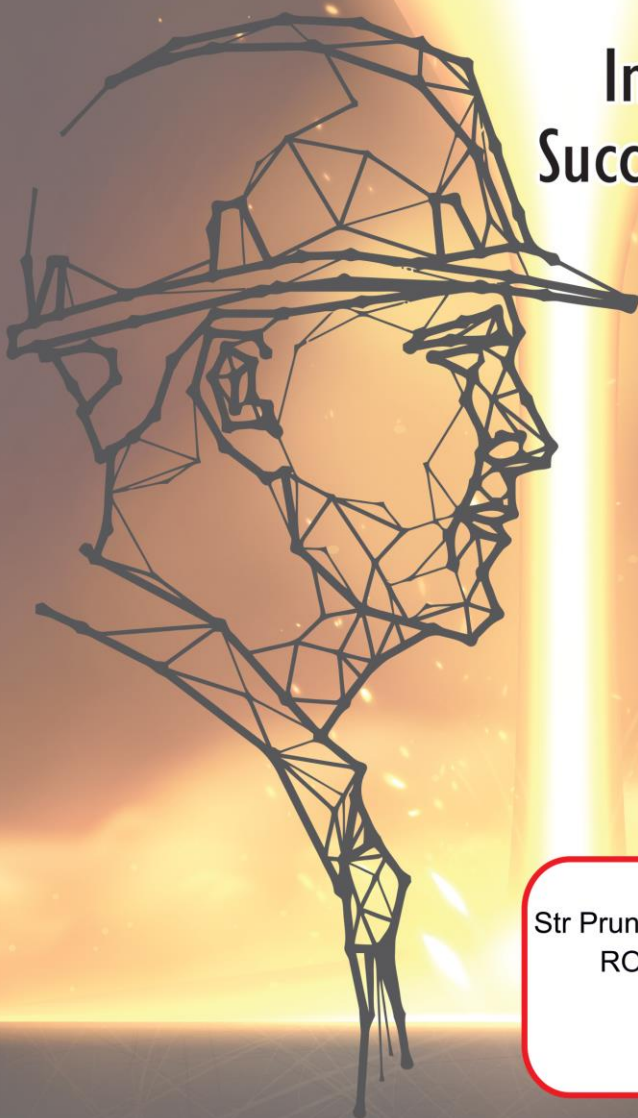
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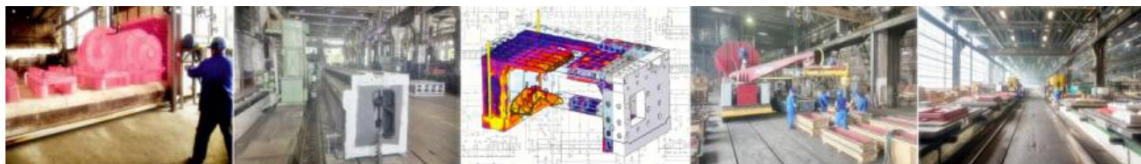
KAOLIN office Romania

Adres: 155 N Titulescu str., bl.21, ent. C, et.6, ap.106
sector1, Bucharest (PO011137), Romania
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