Venue

Central Library, Polytechnic Univ. of Timisoara (UPT), Romania & online Bulevardul Vasile Parvan 2, Timişoara, Romania (Google map), <u>http://library.upt.ro/</u>





Conference Fees

Participation in the conference is free!

Conference proceedings, coffee breaks and **lunches** are included! A limited number of places is available!

Deadlines

Registration & submission of abstracts:20th February 2023Confirmation to Authors:25th February 2023Preliminary Program:04th March2023Submission of full-length papers:30th April2023

Conference chairmen:

Prof. Roberto Brighenti - Univ. of Parma, Italy
Prof. Liviu Marsavina - Polytechnic Univ. of Timisoara, Romania
Prof. Aleksandar Sedmak - Univ. of Belgrade, Serbia
Prof. Lubos Nahlik - Institute of Physics of Materials, Czech
Academy of Sciences, Brno, Czech Republic
Prof. Filippo Berto - Norwegian University of Science and
Technology, Trondheim, Norway





H2020-WIDESPREAD-2018, Grant No. 857124

International Conference on *Structural Integrity and Reliability of Advanced Materials obtained through Additive Manufacturing*

Central Library, Polytechnic Univ. Timisoara Timisoara, Romania, 8th -11th March 2023

SIRAMM23

Organized by



the conference will be held in presence & online

About The Conference

The conference on **Structural Integrity and Reliability of Advanced Materials obtained through Additive Manufacturing** (<u>SIRAMM23</u>) to be held in Timisoara, 8th -11th March 2023, is the final event of the European Twinning Project **SIRAMM**, funded by the European Union's Horizon 2020, H2020-WIDESPREAD-2018-03, under the grant agreement No. 857124. The general aim of the conference is to promote international collaboration and share the current knowledge on the structural integrity of additively manufactured materials and the related disciplines. Of particular interest is the understanding of the role of the AM printing conditions and parameters on the final reliability and safety of AM materials, especially those to be used in load bearing applications. The conference is open to any contribution addressing the problem of characterizing AM materials for traditional as well as for advanced applications.

Presentations addressing the following topics are particularly welcome:

- Structural integrity assessment of AM components
- Mechanical and fracture testing of AM materials
- Fatigue, durability, and reliability of AM materials
- AM and 3D printing advanced technologies
- Simulation of AM processes
- Design of AM parts & process optimization
- Theoretical and numerical models for AM materials
- Advanced AM materials and structures
- Composite AM materials

All materials are concerned, particularly: metals and alloys, ceramics, polymers, gel, biomaterials, composites, sintered materials.

Conference Proceedings

Conference Proceedings will be published in a dedicated issue of the open access Journal

Procedia Structural Integrity (Elsevier)



Authors of selected presentations will be invited to submit their papers to the Special Issue "*Fracture and Additively Manufactured Materials*" of the Journal <u>Theoretical and Applied Fracture</u> <u>Mechanics</u> (Elsevier, IF **4.374**)



Authors of presentations devoted to AM in healthcare, will be invited to submit their papers to the Special Issue "<u>3D</u> <u>Bioprinting for Personalized Medicine</u>", <u>Bioengineering</u> (MDPI, IF **5.046**)



Plenary lectures

Prof. Sara Bagherifard (Polytechnic of Milan - Italy) Surface post-processing of Additive Manufactured metallic materials for enhanced performance Prof. Katia Bertoldi (Harvard Univ. - USA) On the inverse design of flexible mechanical metamaterials Prof. Noy Cohen (Technion, Israel Institute of Technology - Israel) Design of 3D-printed lattice materials and shape-morphing structures Prof. Giulia Scalet (Univ. of Pavia - Italv) Programmable materials and 4D printing: advanced modeling and applications Prof. Geert de Schutter (Ghent Univ. - Belgium) Active rheology control for additive manufacturing of concrete structures Prof. Vadim Silberschmidt (Loughborough Univ. - U.K.) 3D-printed polymers for biomedical applications Prof. Luca Susmel (Univ. of Sheffield - U.K.) The critical distance concept to perform static and fatigue assessment of notched AM polymers Prof. Jan Torgersen (TU Munich, Germany) Upscaled architected carbon and its potential in engineering applications

Scientific Committee

- S. Galatanu, Polytechnic Univ. of Timisoara, Romania
- C. Gao, Norwegian Technical Univ. of Technology, Norway
- A. Grbovic, University of Belgrade, Serbia
- E. Linul, Polytechnic Univ. of Timisoara, Romania
- M. Milosevic, University of Belgrade, Serbia
- L. Nahlik, Institute of Physics of Materials Brno, Czech Republic
- J. Razavi, Norwegian Technical Univ. of Technology, Norway
- A. Sedmak, University of Belgrade, Serbia
- A. Spagnoli, University of Parma, Italy
- D.I. Stoia, Polytechnic Univ. of Timisoara, Romania

Accommodation

- In Timisoara there are plenty of possibilities for accommodation. Please refer to http://hoteltimisoara.ro/ for more info.
- Affordable accommodation are provided by the UPT hotels:
- Casa Casa Politehnicii 1, Casa Casa Politehnicii 2
- Hotel Perla

Registration

For registration & info please send an email either to: Prof. Roberto Brighenti: <u>brigh@unipr.it</u> or to the SIRAMM staff: SIRAMM.Twin@gmail.com