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**The third European Conference on
the Structural Integrity of Additively
Manufactured Materials - ESIAM23**



The third European Conference on the Structural Integrity of Additively Manufactured Materials ESIAM23

Porto, Portugal, & Web, September 4-6, 2023

Structural integrity, i.e. the fracture and fatigue strength of additively manufactured materials and components is becoming increasingly important with the technology's transition towards major industrial utilization. The conference provided an overview over current scientific knowledge and stimulate ideas for future research directions in this emerging field. The agenda allowed for extended discussions and for exploring Porto at the end of summer. ESIAM23 is the second event in presence of the ESIAM series following the success of the first event in Trondheim 2019 (and the online conference held in 2021).

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- Sabrina Vantadori, Univ. of Parma

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| Solid State Additive Manufacturing Enabled by Kinetic Energy | Sara Bagherifard | https://doi.org/10.53255/IGFTUBE.ESIAM23.1 |
| From the idea to flying parts: Fraunhofer IWS AM-applications for aerospace and space | Elena Lopez | https://doi.org/10.53255/IGFTUBE.ESIAM23.2 |
| Evaluating Hydrogen Embrittlement Susceptibility of an Austenitic Stainless Steel obtained by Selective Laser Melting: A comparative between Ex-situ and In-situ tests | Luis Borja Peral Martínez | https://doi.org/10.53255/IGFTUBE.ESIAM23.3 |
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| Verification of the physics-constrained Gaussian process for the fatigue life prediction of additively manufactured 18Ni-300 maraging steel under multiaxial loading | Andrzej Kurek - Aleksander Karolczuk - Michał Böhm - Szymon Derda - Mariusz Prażmowski - Krzysztof Kluger - Krzysztof Żak - Łukasz Pejkowski - Jan Seyda | https://doi.org/10.53255/IGFTUBE.ESIAM23.5 |
| AISI 316L steel cellular structures manufactured by laser-powder bed fusion: experimental investigation of the low cycle fatigue behaviour | Marco Pelegatti - Denis Benasciutti - Francesco De Bona - Alex Lanzutti - Michele Magnan - Enrico Salvati - Federico Scalzo - Francesco Sordetti - Marco Sortino - Giovanni Totis - Emanuele Vaglio | https://doi.org/10.53255/IGFTUBE.ESIAM23.6 |
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| Analysis of static and cyclic properties of AlSi10Mg material in conventional and additive manufacturing. | Vladimír Chmelko - Miloslav Kepka - Matúš Margetin - Tomáš Koščo | https://doi.org/10.53255/IGFTUBE.ESIAM23.12 |
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