

Curriculum Vitae



Personal information

Name / Surname	Alessandro Ascari
Address	Department of Industrial Engineering, University of Bologna, Viale Risorgimento 2, 40136, Bologna, Italy
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Personal Email	a.ascari@unibo.it
Nationality	Italian
Date of birth	15/02/1974
Gender	Male

Education

Title	Ph.D in Mechanical Engineering
Institution	University of di Bologna
Title	Bachelor + Master degree in Mechanical Engineering with Honors
Institution	University of di Bologna
Title	High School
Institution	Liceo Scientifico Wiligelmo Modena

Work Experience

From-To	2023-present
Title	Assciate Professor
Institution	University of di Bologna
From-To	2020-2022
Title	Senior Assistant Professor
Institution	University of di Bologna
From-To	2015-2020
Title	Junior Assistant Professor
Institution	University of di Bologna
From-To	2004-2015
Title	Research Fellow
Institution	University of di Bologna

Participation to International Conferences

Conference Name	Lasers In Manufacturing (LIM) 2005
Place	Munich, Germany
Organizer	WLT - Wissenschaftliche Gesellschaft fur Lasertechnik
Dates	June 13-17, 2005
Conference Name	EMRS Spring Meeting (EMRS) 2006
Place	Nice, France
Organizer	EMRS - European Metals Research Society
Dates	May 29 - June 02, 2006
Conference Name	EMRS Spring Meeting (EMRS) 2007
Place	Strasbourg, France
Organizer	EMRS - European Metals Research Society
Dates	May 28 - June 01, 2007
Conference Name	Lasers In Manufacturing (LIM) 2007
Place	Munich, Germany
Organizer	WLT - Wissenschaftliche Gesellschaft fur Lasertechnik
Dates	June 17-22, 2007
Conference Name	Manufacturing Science and Engineering Conference (MSEC) 2007
Place	Atlanta, USA
Organizer	ASME - American Society for Mechanical Engineering
Dates	October 15-18, 2007
Conference Name	EMRS Spring Meeting (EMRS) 2008
Place	Strasbourg, France
Organizer	EMRS - European Metals Research Society
Dates	May 26-30, 2008
Conference Name	EMRS Spring Meeting (EMRS) 2009
Place	Strasbourg, France
Organizer	EMRS - European Metals Research Society
Dates	June 08-12, 2009
Conference Name	Lasers In Manufacturing (LIM) 2009
Place	Munich, Germany
Organizer	WLT - Wissenschaftliche Gesellschaft fur Lasertechnik
Dates	June 15-18, 2009
Conference Name	Manufacturing Science and Engineering Conference (MSEC) 2009
Place	West Lafayette, USA
Organizer	ASME - American Society for Mechanical engineering
Dates	October 04-07, 2009
Conference Name	Life Cycle Engineering 2012
Place	Berkeley, USA
Organizer	CIRP-College International Pour la Recherche en Productique
Dates	May 23-25, 2012

Conference Name	Industrial Technologies 2012
Place	Aarhus, Denmark
Organizer	Aarhus University, Aalborg University, Spinverse
Dates	June 19-22, 2012
Conference Name	Photonics West 2013
Place	San Francisco, USA
Organizer	SPIE-International Society for Optics and Photonics
Dates	February 02-07, 2013
Conference Name	Manufacturing Science and Engineering Conference (MSEC) 2013
Place	Madison, USA
Organizer	ASME - American Society for Mechanical Engineering
Dates	June 10-14, 2013
Conference Name	67th IIW Annual Assembly & International Conference
Place	Seoul, South Korea
Organizer	International Institute of Welding
Dates	June 13-18, 2014
Conference Name	Lasers In Manufacturing (LIM) 2015
Place	Munich, Germany
Organizer	WLT - Wissenschaftliche Gesellschaft für Lasertechnik
Dates	June 22-25, 2015
Conference Name	Manufacturing Science and Engineering Conference (MSEC) 2016
Place	Blacksburg, USA
Organizer	ASME - American Society for Mechanical Engineering
Dates	June 27 - July 1, 2016
Conference Name	9th International Conference on Photonics and Technologies (LANE)
Place	Fürth, Germany
Organizer	University of Erlangen
Dates	September 19-22, 2016
Conference Name	Advances in Materials and Processing Technologies (AMPT) 2016
Place	Kuala Lumpur, Malaysia
Organizer	University of Kuala Lumpur
Dates	November 08-11, 2016
Conference Name	Manufacturing Science and Engineering Conference (MSEC) 2017
Place	Los Angeles, USA
Organizer	ASME - American Society for Mechanical Engineering
Dates	June 4-8, 2017
Conference Name	Advances in Materials and Processing Technologies (AMPT) 2017
Place	Chennai, India
Organizer	Vellore Institute of Technology
Dates	December 11-14, 2017
Conference Name	Manufacturing Science and Engineering Conference (MSEC) 2018
Place	College Station, USA

Organizer	ASME - American Society for Mechanical Engineering
Dates	June 18-22, 2018
Conference Name	10th CIRP Conference on Photonics and Technologies (LANE) 2018
Place	Fürth, Germany
Organizer	University of Erlangen
Dates	September 04-06, 2018
Conference Name	37th International Congress on Applications of Lasers and Electro-Optics (ICALEO) 2018
Place	Orlando, USA
Organizer	Laser Institute of America
Dates	October 14-18, 2018
Conference Name	Manufacturing Science and Engineering Conference (MSEC) 2019
Place	Erie, USA
Organizer	ASME - American Society for Mechanical Engineering
Dates	June 10-14, 2019
Conference Name	Lasers In Manufacturing (LIM) 2019
Place	Munich, Germany
Organizer	WLT - Wissenschaftliche Gesellschaft für Lasertechnik
Dates	June 24-27, 2019
Conference Name	38th International Congress on Applications of Lasers and Electro-Optics (ICALEO) 2019
Place	Orlando, USA
Organizer	Laser Institute of America
Dates	October 06-10, 2019
Conference Name	39th International Congress on Applications of Lasers and Electro-Optics (ICALEO) 2020
Place	Online
Organizer	Laser Institute of America
Dates	October 19-20, 2020
Conference Name	12th CIRP Conference on Photonics and Technologies (LANE) 2022
Place	Fürth, Germany
Organizer	University of Erlangen
Dates	September 04-08, 2022
Conference Name	41th International Congress on Applications of Lasers and Electro-Optics (ICALEO) 2022
Place	Orlando, USA
Organizer	Laser Institute of America
Dates	October 17-20, 2022
Conference Name	Manufacturing Science and Engineering Conference (MSEC) 2023
Place	New Brunswick, USA
Organizer	ASME - American Society for Mechanical Engineering
Dates	June 12-16, 2023
Conference Name	Lasers In Manufacturing (LIM) 2023
Place	Munich, Germany

Organizer WLT - Wissenschaftliche Gesellschaft für Lasertechnik
Dates June 26-29, 2023

Conference Name 42th International Congress on Applications of Lasers and Electro-Optics (ICALEO) 2023

Place Online

Organizer Laser Institute of America

Dates October 16-19, 2023

Conference Name 14th International Conference on Advanced Lithium Batteries for Automobile Applications (ABAA) 2023

Place Ho Chi Minh City, Vietnam

Organizer IALB - International Automotive Lithium Battery

Dates October 30 - November 01, 2023

Conference Organizing Activities

Activity Symposium co-organizer: Advances in Energy Field Manufacturing Processes
Conference Manufacturing Science and Engineering Conference (MSEC) 2016 (Blacksburg - USA)

Activity Symposium co-organizer: Additive Manufacturing Process Improvements for Part Functionality
Conference Manufacturing Science and Engineering Conference (MSEC) 2017 (Los Angeles - USA)

Activity Symposium co-organizer: Advances in Additive Manufacturing Process Design & Part Performance
Conference Manufacturing Science and Engineering Conference (MSEC) 2018 (College Station - USA)

Activity Symposium co-organizer: Advances in Clean Energy and E-Mobility Manufacturing
Conference Manufacturing Science and Engineering Conference (MSEC) 2024 (Knoxville - USA)

Courses and Specialization

Course Name New Approaches in Materials and Manufacturing Education
Place Cambridge University, UK
Organizer prof. Michael F. Ashby
Dates April 2006

Course Name FEM Simulation of Manufacturing Processes
Place Università della Calabria, Italy
Organizer AITEM - Italian Association of Manufacturing Engineering
Dates September 2006

Conference Name Short Course on Sustainable Manufacturing
Place University of California Berkeley, Berkeley (USA)
Organizer prof. David Dornfeld
Dates May 2012

Conference Name Laser Safety for Engineers
Place Moscone Center, San Francisco (USA)
Organizer dr. Thomas Lieb

Dates February 2013
Conference Name Solid State Laser Technology
Place Moscone Center, San Francisco (USA)
Organizer dr. Norman Hodgson
Dates February 2013

Conference Name Introduction to COMSOL Multiphysics
Place University of Bologna, Italy
Organizer dr. Cesare Tozzo
Dates May 2013

Reviewing Activity

Journal Journal of Materials Processing Technology
ISSN 0924-0136
Editor Elsevier

Journal Optics & Laser Technology
ISSN 0030-3992
Editor Elsevier

Journal Journal of Zhejiang University-SCIENCE A
ISSN 1862-1775
Editor Springer

Journal Journal of Manufacturing Science and Engineering
ISSN 1528-8935
Editor ASME

Journal International Journal of Engineering, Science and Technology
ISSN 2141-2839
Editor AJOL

Journal Lasers in Engineering
ISSN 1029-029X
Editor OCP Science

Journal Materials & Design
ISSN 0264-1275
Editor Elsevier

Journal Journal of Materials: Design and Applications
ISSN 1464-4207
Editor SAGE

Journal Journal of Power Sources
ISSN 0378-7753
Editor Elsevier

Journal Journal of Laser Applications
ISSN 1938-1387
Editor AIP

Scientific Publications

International Journals

- R1 G. Campana, A. Fortunato, A. Ascari, G. Tani, and L. Tomesani.
The influence of arc transfer mode in hybrid LASER-MIG welding.
Journal of Materials Processing Technology, 191:111–113, 2007.
ISSN 0924-0136.
doi: 10.1016/j.jmatprotec.2007.03.001
- R2 G. Tani, G. Campana, A. Fortunato, and A. Ascari.
The influence of shielding gas in hybrid LASER–MIG welding.
Applied Surface Science, 253(19):8050–8053, 2007.
ISSN 01694332.
doi: 10.1016/j.apsusc.2007.02.144
- R3 G. Tani, A. Ascari, G. Campana, and A. Fortunato.
A study on shielding gas contamination in laser welding of non-ferrous alloys.
Applied Surface Science, 254:904–907, 2007.
ISSN 0169-4332.
doi: 10.1016/j.apsusc.2007.08.067
- R4 G. Tani, L. Orazi, A. Fortunato, G. Campana, and A. Ascari.
3D Transient Model for CO₂ Laser Hardening.
Fundamentals of Laser Assisted Micro- and Nanotechnologies, 6985:69850A–1–8,
2008.
ISSN 0277-786X.
doi: 10.1117/12.786970
- R5 G. Tani, L. Orazi, A. Fortunato, G. Campana, A. Ascari, and G. Cuccolini.
Optimization strategies of laser hardening of hypo-eutectoid Steel.
Manufacturing Systems and Technologies for the New Frontier, 1 part 9(355-360),
2008.
doi: 10.1007/978-1-84800-267-8_72
- R6 G. Campana, A. Ascari, A. Fortunato, and G. Tani.
Hybrid LASER-MIG welding of aluminum alloys: The influence of shielding gases.
Applied Surface Science, 255(10):5588–5590, 2009.
ISSN 0169-4332.
doi: 10.1016/j.apsusc.2008.07.169
- R7 G. Tani, L. Orazi, A. Fortunato, G. Campana, and A. Ascari.
3D Modelling of Laser Hardening and Tempering of Hypo-eutectoid Steels.
Journal of Laser Micro/Nanoengineering, 3(2):124–128, April 2008.
ISSN 18800688.
doi: 10.2961/jlmn.2008.02.0012
- R8 L. Orazi, A. Fortunato, G. Campana, A. Ascari, G. Cuccolini, and G. Tani.
A new computationally efficient model for martensite to austenite transformation in
multi-tracks laser hardening.
Journal of Optoelectronics and Advanced Materials, 12(3):692 – 696, 2010.
ISSN 1454-4164
- R9 A. Fortunato, G. Cuccolini, A. Ascari, L. Orazi, G. Campana, and G. Tani.
Hybrid metal-plastic joining by means of laser.
International Journal of Material Forming, 3(S1):1131–1134, 2010.
ISSN 1960-6206.
doi: 10.1007/s12289-010-0971-1

- R10 G. Tani, A. Fortunato, A. Ascari, and G. Campana.
Laser surface hardening of martensitic stainless steel hollow parts.
CIRP Annals - Manufacturing Technology, 59(1):207–210, 2010.
ISSN 00078506.
doi: 10.1016/j.cirp.2010.03.077
- R11 G. Tani, L. Orazi, A. Fortunato, A. Ascari, and G. Campana.
Warm laser shock peening: New developments and process optimization.
CIRP Annals - Manufacturing Technology, 60:219–222, 2011.
ISSN 0007-8506.
doi: 10.1016/j.cirp.2011.03.115
- R12 A. Ascari, A. Fortunato, L. Orazi, and G. Campana.
The influence of process parameters on porosity formation in hybrid LASER-GMA welding of AA6082 aluminum alloy.
Optics & Laser Technology, 44(5):1485–1490, 2012.
ISSN 0030-3992.
doi: 10.1016/j.optlastec.2011.12.014
- R13 A. Fortunato, A. Ascari, L. Orazi, G. Campana, and G. Cuccolini.
Numerical evaluation of the reflectivity coefficient in laser surface hardening simulation.
Surface and Coatings Technology, 206(14):3179–3185, 2012.
ISSN 0257-8972.
doi: 10.1016/j.surfcoat.2011.12.043
- R14 A. Fortunato, A. Ascari, L. Orazi, G. Cuccolini, G. Campana, and G. Tani.
Numerical simulation of nanosecond pulsed laser welding of eutectoid steel components.
Optics & Laser Technology, 44(7):1999–2003, October 2012.
ISSN 0030-3992.
doi: 10.1016/j.optlastec.2012.03.040
- R15 A. Fortunato and A. Ascari.
The virtual design of machining centers for HSM: Towards new integrated tools.
Mechatronics, in press,(corrected proofs), 2013.
ISSN 09574158.
doi: 10.1016/j.mechatronics.2012.12.004
- R16 G. Campana, A. Ascari, and A. Fortunato.
Laser foaming for joining aluminum foam cores inside a hollow profile.
Optics & Laser Technology, 48:331–336, 2013.
ISSN 00303992.
doi: 10.1016/j.optlastec.2012.11.005
- R17 A. Ascari and A. Fortunato.
Nanosecond pulsed laser welding of high carbon steels.
Optics & Laser Technology, 56:25–34, March 2014.
ISSN 00303992.
doi: 10.1016/j.optlastec.2013.07.016
- R18 Leonardo Orazi, Erica Liverani, Alessandro Ascari, Alessandro Fortunato, and Luca Tomesani.
Laser surface hardening of large cylindrical components utilizing ring spot geometry.
CIRP Annals - Manufacturing Technology, 63(1):233–236, 2014.
doi: 10.1016/j.cirp.2014.03.052
- R19 Alessandro Ascari and Alessandro Fortunato.
Nanosecond pulsed laser welding of high carbon steels.
Optics & Laser Technology, 56:25–34, mar 2014.
ISSN 00303992.
doi: 10.1016/j.optlastec.2013.07.016

- R20 | A.H.A. Lutey, A. Fortunato, A. Ascari, S. Carmignato, and C. Leone.
Laser cutting of lithium iron phosphate battery electrodes: Characterization of process efficiency and quality.
Optics & Laser Technology, 65:164–174, jan 2015.
ISSN 00303992.
doi: 10.1016/j.optlastec.2014.07.023
- R21 | N. Pagano, A. Ascari, E. Liverani, L. Donati, G. Campana, and A. Fortunato.
Laser Interaction with Carbon Fibre Reinforced Polymers.
Procedia CIRP, 33:423–427, 2015.
ISSN 22128271.
doi: 10.1016/j.procir.2015.06.097
- R22 | A.V. Demchishin, I. Gnilitzkiy, L. Orazi, and A. Ascari.
Structure, phase composition and microhardness of vacuum-arc multilayered Ti/Al, Ti/Cu, Ti/Fe, Ti/Zr nano-structures with different periods.
Applied Surface Science, 342:127–135, jul 2015.
ISSN 01694332.
doi: 10.1016/j.apsusc.2015.03.005
- R23 | A. Ascari, A. Fortunato, E. Liverani, A. Gamberoni, and L. Tomesani.
New Possibilities in the Fabrication of Hybrid Components with Big Dimensions by Means of Selective Laser Melting (SLM).
Physics Procedia, 83:839–846, 2016.
ISSN 18753892.
doi: 10.1016/j.phpro.2016.08.087
- R24 | Alessandro Ascari, Alessandro Fortunato, Adrian H.A. Lutey, Giacomo Guerrini, and Nunziante Pagano.
Long Pulse Laser Wire Deposition of Hard Steels.
Physics Procedia, 83:723–732, 2016.
ISSN 18753892.
doi: 10.1016/j.phpro.2016.08.074
- R25 | Adrian H A Lutey, Alessandro Fortunato, Simone Carmignato, Alessandro Ascari, Erica Liverani, and Giacomo Guerrini.
Quality and Productivity Considerations for Laser Cutting of LiFePO₄ and LiNiMn-CoO₂ Battery Electrodes.
Procedia CIRP, 42(Isem Xviii):433–438, 2016.
ISSN 22128271.
doi: 10.1016/j.procir.2016.02.227
- R26 | E. Liverani, A. Fortunato, A. Leardini, C. Belvedere, S. Siegler, L. Ceschini, and A. Ascari.
Fabrication of Co–Cr–Mo endoprosthetic ankle devices by means of Selective Laser Melting (SLM).
Materials & Design, 106:60–68, sep 2016.
ISSN 02641275.
doi: 10.1016/j.matdes.2016.05.083
- R27 | Alistair Speidel, Adrian Hugh Alexander Lutey, Jonathon Mitchell-Smith, Graham A. Rance, Erica Liverani, Alessandro Ascari, Alessandro Fortunato, and Adam Clare.
Surface modification of mild steel using a combination of laser and electrochemical processes.
Surface and Coatings Technology, sep 2016.
ISSN 02578972.
doi: 10.1016/j.surfcoat.2016.09.077

- R28 Erica Liverani, Adrian H.A. Lutey, Alessandro Ascari, Alessandro Fortunato, and Luca Tomesani.
A complete residual stress model for laser surface hardening of complex medium carbon steel components.
Surface and Coatings Technology, 302:100–106, sep 2016.
ISSN 02578972.
doi: 10.1016/j.surfcoat.2016.05.066
- R29 E. Liverani, D. Sorgente, A. Ascari, L.D. Scintilla, G. Palumbo, and A. Fortunato.
Development of a model for the simulation of laser surface heat treatments with use of a physical simulator.
Journal of Manufacturing Processes, 26:262–268, apr 2017.
ISSN 15266125.
doi: 10.1016/j.jmapro.2017.02.023
- R30 Alessandro Ascari, Alessandro Fortunato, Giacomo Guerrini, Erica Liverani, and Adrian Lutey.
Long Pulse Laser Micro Welding of Commercially Pure Titanium Thin Sheets.
Procedia Engineering, 184:274–283, 2017.
ISSN 18777058.
doi: 10.1016/j.proeng.2017.04.095
- R31 A.H.A. Lutey, A. Fortunato, A. Ascari, and L. Romoli.
A modeling approach for plastic-metal laser direct joining.
Lasers in Manufacturing and Materials Processing, 4(3):136–151, 2017.
doi: 10.1007/s40516-017-0042-2
- R32 A.H.A. Lutey, A. Ascari, A. Fortunato, and L. Romoli.
Long-pulse quasi-cw laser cutting of metals.
International Journal of Advanced Manufacturing Technology, 94(1-4):155–162, 2018.
doi: 10.1007/s00170-017-0913-x
- R33 A. Fortunato, A. Lulaj, S. Melkote, E. Liverani, A. Ascari, and D. Umbrello.
Milling of maraging steel components produced by selective laser melting.
International Journal of Advanced Manufacturing Technology, 94(5-8):1895–1902, 2018.
doi: 10.1007/s00170-017-0922-9
- R34 E.P. Zapico, A.H.A. Lutey, A. Ascari, C.R. Gomez Perez, E. Liverani, and A. Fortunato.
An improved model for cold metal transfer welding of aluminium alloys.
Journal of Thermal Analysis and Calorimetry, 131(3):3003–3009, 2018.
doi: 10.1007/s10973-017-6800-8
- R35 A. Fortunato and A. Ascari.
Laser welding of thin copper and aluminum sheets: Feasibility and challenges in continuous-wave welding of dissimilar metals.
Lasers in Manufacturing and Materials Processing, 6, 2019.
ISSN 21967237.
doi: 10.1007/s40516-019-00085-z
- R36 G. Guerrini, A.H.A. Lutey, S.N. Melkote, A. Ascari, and A. Fortunato.
Dry generating gear grinding: Hierarchical two-step finite element model for process optimization.
Journal of Manufacturing Science and Engineering, Transactions of the ASME, 141(6):061005–1–061005–9, 2019.
doi: 10.1115/1.4043309
- R37 V. Dimatteo, A. Ascari, and A. Fortunato.
Continuous laser welding with spatial beam oscillation of dissimilar thin sheet materials (al-cu and cu-al): Process optimization and characterization.
Journal of Manufacturing Processes, 44:158–165, 2019.
doi: 10.1016/j.jmapro.2019.06.002

- R38 F. Lerra, A. Ascari, and A. Fortunato.
The influence of laser pulse shape and separation distance on dissimilar welding of al and cu films.
Journal of Manufacturing Processes, 45:331–339, 2019.
doi: 10.1016/j.jmapro.2019.07.015
- R39 A. Fortunato, G. Valli, E. Liverani, and A. Ascari.
Additive manufacturing of wc-co cutting tools for gear production.
Lasers in Manufacturing and Materials Processing, 6(3):247–262, 2019.
doi: 10.1007/s40516-019-00092-0
- R40 Erica Liverani, Adrian H. A. Lutey, Alessandro Ascari, and Alessandro Fortunato.
The effects of hot isostatic pressing (hip) and solubilization heat treatment on the density, mechanical properties, and microstructure of austenitic stainless steel parts produced by selective laser melting (slm).
International Journal of Advanced Manufacturing Technology, 107(1-2):109 – 122, 2020.
doi: 10.1007/s00170-020-05072-9
- R41 Alessandro Ascari, Alessandro Fortunato, and Vincenzo Dimatteo.
Short pulse laser welding of aluminum and copper alloys in dissimilar configuration.
Journal of Laser Applications, 32(2), 2020.
doi: 10.2351/7.0000073
- R42 A. Ascari, A.H.A. Lutey, E. Liverani, and A. Fortunato.
Laser directed energy deposition of bulk 316l stainless steel.
Lasers in Manufacturing and Materials Processing, 7, 2020.
ISSN 21967237.
doi: 10.1007/s40516-020-00128-w
- R43 A. Ascari, A. Fortunato, and V. Dimatteo.
Short pulse laser welding of aluminum and copper alloys in dissimilar configuration.
Journal of Laser Applications, 32, 2020.
ISSN 1042346X.
doi: 10.2351/7.0000073
- R44 E. Liverani, A.H.A. Lutey, A. Ascari, and A. Fortunato.
The effects of hot isostatic pressing (hip) and solubilization heat treatment on the density, mechanical properties, and microstructure of austenitic stainless steel parts produced by selective laser melting (slm).
International Journal of Advanced Manufacturing Technology, 107, 2020.
ISSN 14333015.
doi: 10.1007/s00170-020-05072-9
- R45 V. Dimatteo, A. Ascari, and A. Fortunato.
Dissimilar laser welding of copper and aluminum alloys in multilayer configuration for battery applications.
Journal of Laser Applications, 33, 2021.
ISSN 1042346X.
doi: 10.2351/7.0000476
- R46 E. Pérez Zapico, A. Ascari, V. Dimatteo, and A. Fortunato.
Laser dissimilar welding of copper and steel thin sheets for battery production.
Journal of Laser Applications, 33, 2021.
ISSN 1042346X.
doi: 10.2351/7.0000309

- R47 M. Sokolov, P. Franciosa, T. Sun, D. Ceglarek, V. Dimatteo, A. Ascari, A. Fortunato, and F. Nagel.
Applying optical coherence tomography for weld depth monitoring in remote laser welding of automotive battery tab connectors.
Journal of Laser Applications, 33, 2021.
ISSN 1042346X.
doi: 10.2351/7.0000336
- R48 V. Dimatteo, A. Ascari, P. Faverzani, L. Poggio, and A. Fortunato.
The effect of process parameters on the morphology, mechanical strength and electrical resistance of cw laser-welded pure copper hairpins.
Journal of Manufacturing Processes, 62, 2021.
ISSN 15266125.
doi: 10.1016/j.jmapro.2020.12.018
- R49 E. Perez Zapico, A. Ascari, A. Fortunato, E. Liverani, and V. Dimatteo.
Influence of process parameters in blue laser welding of copper and aluminum thin sheets.
Journal of Laser Applications, 34, 2022.
ISSN 1042346X.
doi: 10.2351/7.0000836
- R50 N. Ali, A. Ascari, A. Fortunato, and L. Tomesani.
An empirical statistical model for laser cladding of aluminium bronze on s235jr pipe.
Lasers in Manufacturing and Materials Processing, 9, 2022.
ISSN 21967237.
doi: 10.1007/s40516-022-00184-4
- R51 F. Lerra, E. Liverani, A. Ascari, and A. Fortunato.
Prediction of the grinding wheel specification influence on thermal defects in dry grinding through a hierarchical fem model.
International Journal of Advanced Manufacturing Technology, 121, 2022.
ISSN 14333015.
doi: 10.1007/s00170-022-09702-2
- R52 V. Dimatteo, E. Liverani, A. Ascari, and A. Fortunato.
Weldability and mechanical properties of dissimilar laser welded aluminum alloys thin sheets produced by conventional rolling and additive manufacturing.
Journal of Materials Processing Technology, 302, 2022.
ISSN 09240136.
doi: 10.1016/j.jmatprotec.2022.117512
- R53 N. Ali, L. Tomesani, A. Ascari, and A. Fortunato.
Fabrication of thin walls with and without close loop control as a function of scan strategy via direct energy deposition.
Lasers in Manufacturing and Materials Processing, 9, 2022.
ISSN 21967237.
doi: 10.1007/s40516-022-00164-8
- R54 V. Dimatteo, A. Ascari, E. Liverani, and A. Fortunato.
Experimental investigation on the effect of spot diameter on continuous-wave laser welding of copper and aluminum thin sheets for battery manufacturing.
Optics and Laser Technology, 145, 2022.
ISSN 00303992.
doi: 10.1016/j.optlastec.2021.107495
- R55 E. Liverani, A. Ascari, and A. Fortunato.
Multilayered wc-co coatings by direct energy deposition-based cladding: Effect of laser remelting on interface defects.
Surface and Coatings Technology, 464, 2023.
ISSN 02578972.
doi: 10.1016/j.surfcoat.2023.129556

- R56 E. Liverani, A. Ascari, L. Tomesani, and A. Fortunato.
From conduction to keyhole transition on copper using blue laser: Bead-on-plate process modeling and analysis of physical phenomena.
Journal of Materials Processing Technology, 316, 2023.
ISSN 09240136.
doi: 10.1016/j.jmatprotec.2023.117953
- R57 E. Liverani, A. Ascari, and A. Fortunato.
The role of filler wire and scanning strategy in laser welding of difficult-to-weld aluminum alloys.
International Journal of Advanced Manufacturing Technology, 2023.
ISSN 14333015.
doi: 10.1007/s00170-023-11932-x

Conference Proceedings

- A1 G. Tani, A. Ascari, and L. Orazi.
Metallurgical Phases Distribution Detection Through Image Analysis for Simulation of Laser Hardening of Carbon Steels.
In *ASME 2007 International Manufacturing Science and Engineering Conference*, pages 311–317. ASME, 2007.
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