

# Diego Giovanni Manfredi



## Personal details

---

Date of birth	31 January 1978
Civil status	Married, three children
Address	
Phone	
E-mail	<a href="mailto:diego.manfredi@polito.it">diego.manfredi@polito.it</a> ; <a href="mailto:diego.manfredi78@gmail.com">diego.manfredi78@gmail.com</a> ; <a href="mailto:diego.manfredi@iit.it">diego.manfredi@iit.it</a>
Occupation	Assistant Professor at Politecnico di Torino (Scopus Author ID: 23967988600; h-index 29; orcid 0000-0002-2876-143X); Affiliated Researcher at Istituto Italiano di Tecnologia IIT@Polito

## Education

---

2018	<i>Associate Professor National Scientific Qualification</i> (Abilitazione Scientifica Nazionale) in Academic Disciplines <i>Materials Science and Technology</i> (09/D1) and in <i>Industrial Design and Metallurgy</i> (09/A3) for the period April 2018 – April 2024.
2008	<i>PhD in Material Science and Technology at Politecnico di Torino</i> . Thesis “ <i>High ceramic content composites: co-continuous ceramic composites</i> ”, defended on 14 <sup>th</sup> March 2008, advisor Prof. Claudio Badini, final evaluation: excellent.
2003	Professional qualifying examination on Materials Engineering.
2003	<i>Master Degree in Materials Engineering at Politecnico di Torino</i> . Thesis “ <i>Studio e sviluppo di sospensioni per auto in lega di alluminio mediante squeeze casting</i> ” with a 6 months stage in Stampal S.p.a., advisor prof. Mario Rosso, final evaluation: 110/110 cum laude.

## Work experience

---

August 2019-present	<i>Assistant Professor at Politecnico di Torino</i> . Main activities: teaching, mentoring of post-doc and of PhD students in Material Science and Technology, fund raising through competitive research projects and commercial projects focused on AM technologies.
January 2018-July 2019	<i>Researcher at the Center for Sustainable Future Technologies (CSFT@Polito) of Istituto Italiano di Tecnologia (IIT)</i> . Main activities: fund raising through competitive research projects and commercial projects; mentoring of post-doc and PhD students of the <i>Advanced Materials for Sustainable Future Technologies</i> research line; collaboration with <i>CNR-IEIT</i> institute to fabricate by AM microwave waveguide filters for satellite telecommunications; collaboration with <i>Università di Torino</i> for the development of high strength Al alloys to be processed by Additive Manufacturing (AM); collaboration with <i>Università degli Studi di Bergamo</i> to investigate the corrosion behavior of AM alloys.

2013-December 2017	<i>Researcher Technologist at the Center for Sustainable Future Technologies (CSFT@Polito) of Istituto Italiano di Tecnologia (IIT) (formerly known as Center for Space Human Robotics CSHR@Polito). Main activities: fund raising through competitive research projects and commercial projects; mentoring of post-doc and PhD students of the Additive Manufacturing/3DPrinting (AM/3DP) research line, in particular for new materials development; networking with ADVR-IIT Department and with DENERG department of Politecnico di Torino to fabricate functional components by AM like hydraulic manifolds for robotic applications and high performance heat sinks. The research was also focused on open architectures and structures like cellular, lattice and foams for applications as electrodes, radiant burners or heat exchangers.</i>
2010-2012	<i>Post-doc Researcher at the Center for Space Human Robotics (CSHR@Polito) of Istituto Italiano di Tecnologia (IIT). Main activities: implementation and organization of the Rapid Prototyping Lab in the frame work of Robotic Platform; research activities focused on the development of the Additive Manufacturing technique Direct Metal Laser Sintering (DMLS) to fabricate lightweight components with complex shapes, like a finger exoskeleton with non-assembly joints, and on the materials characterization at the nano-scale.</i>
2008-2009	<i>Research Fellow at the Materials Science and Chemical Engineering Department of Politecnico di Torino. Research topics: Metal Matrix nano-Composites, multilayered Ceramic Matrix Composites (CMCs) by tape casting for aerospace applications, intermetallic alloys for aerospace engines, ceramic coatings for turbine blades.</i>
2005-2007	<i>PhD student on Materials Science and Technology at Politecnico di Torino. Research activity focused on co-continuous metal-ceramic composites obtained by Reactive Metal Penetration.</i>
2004	<i>Quality Engineer at Eaton Automotive Srl. Formation on NDT (Non Destructive Tests) for detecting defects in stainless steels parts and components after hot pressing, heat treatments and post-processing treatments.</i>

---

#### Project Grants - as Principal Investigator (PI) for IIT

##### Competitive projects

2019-2021	<i>Call ESA GSTP AO/1-9376/19/NL/HK "Evaluation and Consolodation of Additive Manufacturing Processes and Materials for the Manufacturing of RF Hardware".</i>
2018-2022	<i>European project ECCO "Energy Efficient Coil Coating Process", call H2020-SPIRE-2017, Innovation Action 768692. The main idea is to find novel solution for the curing oven operation within coil coating industrial process, increasing the compactness and energetic efficiency of the system, and the production flexibility. IIT is involved in the development and characterization of advanced materials processed by additive manufacturing/3D printing to be used in IR radiant porous burners.</i>
2016-2019	<i>Regional Project STAMP "Sviluppo Tecnologico dell'Additive Manufacturing in Piemonte", funded by Regione Piemonte with Grant POR FESR Piemonte 2014/2020 "Fabbrica Intelligente". IIT is involved in the fabrication of end-users demonstrators for aeronautics, aerospace, automotive in different alloys by Laser Powder Bed Fusion process, in the development of new alloys for the same process and in the optimization of process and post-process conditions.</i>

2014-2017 European project *HELMETH “Integrated High-Temperature Electrolysis and Methanation for Effective Power to Gas Conversion”*, EU FP7 for the Fuel Cells and Hydrogen JTI under Grant Agreement 621210 (Call: FCH-JU-2013-1). IIT is a third party to Politecnico di Torino (DISAT Department) with the aim of designing and fabricating heat exchanging elements for high temperature and harsh environments by DMLS.

#### Commercial projects

2015-2016 Contract with *ASE (Aerospace Electrical Systems) Spa* for the re-design and subsequent manufacturing by the Additive Manufacturing technique DMLS of a brushless starter generator.

2015 Contract with *Fondazione Bruno Kessler (FBK)* for the production by the Additive Manufacturing technique DMLS of mechanical components to be used for automotive applications in aluminum and titanium alloys.

2014-2015 Contract with *ASTRA Refrigeranti Spa* for the production of a compact heat exchanger by DMLS in aluminum alloy with a remarkably enhanced convective heat transfer coefficient, taking advantage of artificial roughness typical of this technology.

---

#### PhD mentoring

2019-present *Fabrizio Marinucci*, Title proposed “Light alloys development for Laser Powder Bed Fusion process” IIT Project on Sustainable Future Technologies, in collaboration with Department of Applied Science and Technology, Politecnico di Torino, XXXV Cycle, Tutor: Prof. F. Bondioli

2018-present *Enrico Virgillito*, Title proposed “Powders for Metallic Additive Manufacturing from wastes”, IIT Project on Sustainable Future Technologies, in collaboration with Department of Applied Science and Technology, Politecnico di Torino, XXXIV Cycle, Tutor: Prof. M. Lombardi

2016-2019 *Simone Parizia*, Title “Study of heat treatments for the Inconel 625 and process optimization for the Inconel 939 produced by Laser Powder Bed Fusion”, IIT Project on Sustainable Future Technologies, in collaboration with Department of Applied Science and Technology, Politecnico di Torino, XXXII Cycle, Tutor: Prof. P. Fino; Supervisor: Dr. D. Manfredi

2015-2018 *Giulio Cattano*, Title “Feasibilities studies on Laser Powder Bed Fusion of powder mixtures based on Aluminium Alloys or High Entropy Alloys”, IIT Project on Sustainable Future Technologies, in collaboration with Department of Applied Science and Technology, Politecnico di Torino, XXXI Cycle, Tutor: Prof. P. Fino; Supervisor: Dr. D. Manfredi

2014-2017 *Francesco Trevisan*, Thesis “Study and characterisation of different metal alloys processed through Laser Powder Bed Fusion”, IIT Project on Sustainable Future Technologies, in collaboration with Department of Applied Science and Technology, Politecnico di Torino, XXX Cycle, Tutor: Prof. P. Fino; Supervisor: Dr. D. Manfredi

2014-2017 *Jukka Pakkanen*, Thesis “Designing for Additive Manufacturing: Product and Process driven design for Metals and Polymers”, IIT Project on Sustainable Future Technologies, in collaboration with Department of Applied Science and Technology, Politecnico di Torino, XXX Cycle, Tutor: Prof. P. Fino

2012-2014 *Riccardo Canali*, Thesis “Study, development and characterization of aluminum based materials by additive manufacturing”, IIT Project on Space Human Robotics, in collaboration with Department of Applied Science and Technology, Politecnico di Torino, XXVII Cycle, Tutor: Prof. P. Fino

2011-2013 *Manickavasagam Krishnan*, Thesis “Investigation of material and mechanical properties of Al alloy and Al based MMC parts produced by DMLS for industrial application”, IIT Project on Space Human Robotics, in collaboration with Department of Management and Production Engineering and Department of Applied Science and Technology, Politecnico di Torino, XXVI Cycle, Tutors: Prof. L. Iuliano, Prof. P. Fino

## Post-doc mentoring

---

- 2014-2020 *Massimo Lorusso*: his research activities are mainly focused on the preparation and characterization of samples with very fine microstructures (as processed by Additive Manufacturing techniques) by mechanical tests: tensile and fatigue tests, micro- and nano-hardness, macro- micro- and nano- wear resistance evaluation.

## Teaching - Lecturing

---

- 2020-2021 *Lecturer* in the course “*Scienza e Tecnologia dei Materiali*” (ING-IND 22) of Laurea Magistrale Ingegneria Aerospaziale (48 hours), in the course “*Nuovi Materiali per il Design*” (ING-IND 22) of Laurea Magistrale Design e Comunicazione visiva (30 hours), and in the course “*Scienza e Tecnologia dei Materiali Ceramici*” (ING-IND 22) of Laurea Magistrale Ingegneria dei Materiali (21 hours).
- 2019-2020 *Lecturer* in the course “*Scienza e Tecnologia dei Materiali*” (ING-IND 22) of Laurea Magistrale Ingegneria Aerospaziale (48 hours), and in the course “*Scienza e Tecnologia dei Materiali Ceramici*” (ING-IND 22) of Laurea Magistrale Ingegneria dei Materiali (21 hours).
- 2018-2019 *Tutor of students* in the course “*Materiali e Tecnologie per il design*” (ING-IND 22) of Design e Comunicazione Visiva, Prof. Mariangela Lombardi, Politecnico di Torino (30 hours).
- 2017-2018 *Lecturer* in the course “*Tecnologia dei Materiali da Costruzione*” (ING-IND 22) of Laurea Magistrale Ingegneria Civile, Politecnico di Torino (30 hours).
- 2017-2018 *Adjunct Lecturer* in the course “*Materiali e Tecnologie per il design*” (ING-IND 22) of Design e Comunicazione Visiva, Prof. Mariangela, Lombardi Politecnico di Torino (20 hours).
- 2015-2018 *Lecturer* in the Second level Specializing Master course *Additive Manufacturing* of Politecnico di Torino, module “*Materials for additive manufacturing*”, on Steels, Ti based alloys and Ni based Superalloys.
- 2016-2017 *Adjunct Lecturer* in the course “*Materiali Metallici*” (ING-IND 22) of Ingegneria Meccanica, Prof. Marina Cabrini, Università degli Studi di Bergamo (3 hours).
- 2016-2017 *Adjunct Lecturer* in the course “*Biomateriali*” (ING-IND 22) of Ingegneria Tecnologie per la Salute, Prof. Marina Cabrini, Università degli Studi di Bergamo (3 hours).
- 2009-2010 *Invited Professor* from Scuola Universitaria Professionale della Svizzera Italiana (SUPSI), Manno (Lugano), in the Master of Science in Precision Manufacturing, module Materials for Precision Manufacturing, lecturer for the course “*Materials for Cutting Tools*” (22 hours).
- 2009-2010 *Adjunct Lecturer* of Prof. Paolo Fino in the course “*Scienza e Tecnologia dei Materiali Ceramici*” of Ingegneria dei Materiali, Politecnico di Torino (30 hours).
- 2008-2019 *Adjunct Lecturer* of Prof. Paolo Fino in the course “*Scienza e Tecnologia dei Materiali Ceramici*” of Ingegneria dei Materiali, Politecnico di Torino (30 hours).
- 2006-2007 *Adjunct Lecturer* of Prof. Paolo Fino in the course “*Tecnologia dei Materiali*” of Ingegneria Logistica e della Produzione, Politecnico di Torino (14 hours).

## Language Skills

---

- Italian: mother tongue  
English: advanced level  
French: basic level

## Reviewer

---

Book proposals on Additive Manufacturing for Elsevier and Springer.

International Journals (Elsevier): Materials Science & Engineering A, Journal of Alloys & Compounds, Journal of Material Processing Technology, Additive Manufacturing.

## Technical Skills

---

Materials Processing:

Laser Powder Bed Fusion (LPBF), also known as Selective Laser Melting (SLM) or Direct Metal Laser Sintering (DMLS). Certificates of advanced training on EOSINT M270/M280 system and on Concept Laser MLab R.

Direct Light Processing (DLP), Reactive Metal Penetration (RMP), Tape casting, Spark Plasma Sintering (SPS).

Materials Characterization:

Field Emission Gun Scanning Electron Microscopy (FEGSEM), Energy Dispersive X-Ray Spectroscopy (EDX), Nanoindentation (through a Hysitron TI-950 Triboindenter), X-ray Diffraction (XRD), Mechanical materials testing (tensile, flexural, hardness, Young's Modulus, wear), Optical Microscopy, Thermal materials analyses (DTA, DSC, TGA, TMA).

## Invited Talks & Seminars

---

- 2019 In the *MAM Study days, Additive Manufacturing the Products (27-29 November)*, sponsored by Baker Hughes, GE Florence Learning Center, Florence, talk on *"State of the Art of AM Products for aerospace turbines"* (27<sup>th</sup> November)
- 2019 In the *NIS Colloquium - project STAMP dissemination*, Dipartimento di Chimica dell'Università di Torino, Prof. Livio Battezzati, talk on *"Overview on Selective Laser Melting: equipment, alloy processing, critical aspects, innovative outlook, mechanical requirements"* (14<sup>th</sup> February)
- 2019 In the *Corso di formazione per Intermediari* (operatori della Camera di Commercio e soggetti del Poli di Innovazione), *La trasformazione digitale: un'opportunità per le PMI*, organizzato da CSP all'interno del progetto SMART SPACE - Smart Manufacturing for Alpine Space SME's, Torino, talk on *"Additive Manufacturing – enabling technology for Industry 4.0"* (22<sup>nd</sup> January)
- 2018 In the *EPMA (European Powder Metallurgy Association) Summer School 2018 (2-6 July 2018)*, Vienna, talk on *"Additive Manufacturing"* (3<sup>rd</sup> July)
- 2017 In the *Emerging Technologies and Security Course (4-8 December 2017)*, UNICRI (United Nations Interregional Crime and Justice Research Institute), Torino, talk on *"New technologies: 3D Printing Additive Manufacturing – AM"* (7<sup>th</sup> December)
- 2017 *University of Bergamo*, invited by prof M. Cabrini, corso di Biomateriali della laurea in Ingegneria Meccanica (A.A. 2017-2018), seminar on *"Tecnologie additive e stampa 3D in ambito biomedicale"*, Dalmine (BG) (4<sup>th</sup> December)
- 2017 *Cardiff University*, invited by prof A. Porch, *Centre for High Frequency Engineering (CHFE)*, seminar on *"Laser Powder Bed Fusion of Al and Ti alloys for Microwave Waveguide Devices"* (9<sup>th</sup> May)

## Conferences Chairman

---

- 2020 *Euro PM2020 Virtual Congress*, in: *"Session 23: Impurities in AM Powders"* (5-7 October)
- 2018 *Euro PM2018 Congress & Exhibition*, in: *"Session 48: AM Post Treatment"* and *"Session 54: AM Post Processing"*, Bilbao, Spain (14-18 October)

- 2017 *Euro PM2017 Congress & Exhibition*, in: “Session 1: AM Beam Based Technologies” and “Session 14: Special Materials for AM”, Milano, Italy (1-5 October)
- 2017 *ICEAA'17 & IEEE-APS APWC'17*, in the special session: “Additive Manufacturing: Technologies and Microwave Applications”, Verona, Italy (11-15 September)
- 2017 *KES-SDM2017 4th International Conference on Sustainable Design and Manufacturing*, in the session: “Sustainability of 3D Printing and Additive Manufacturing”, Bologna, Italy (26-28 April)

---

#### Conferences with oral presentations

- 2019 *AAMS2019 Alloys for Additive Manufacturing Symposium*, "A method to process new alloys by Laser Powder Bed Fusion saving time and powders" Chalmers University of Technology, Gothenburg, Sweden (18-20 September)
- 2018 *Convegno Additive Manufacturing e controlli non distruttivi*, “Laser powder bed fusion of aluminum, titanium and nickel based alloys: example of applications”, organized by Ordine degli Ingegneri della Provincia di Torino in collaboration with Associazione Italiana Prove non Distruttive (AIPnD), Torino, Italy (21-22 November)
- 2018 *THERMEC'2018, International Conference on Processing & Manufacturing of Advanced Materials* Session E8: *Additive Manufacturing*, “3D Printing of Al, Ti and Ni based alloys by laser powder bed fusion”, Paris, France (8-13 July) - INVITED
- 2017 *ICEAA'17 & IEEE-APS APWC'17*, Special Session: *Additive Manufacturing: Technologies and Microwave Applications*, “Laser Powder Bed Fusion of Aluminum, Titanium and Nickel Based Alloys: Materials and Design Investigations”, Verona, Italy (11-15 September) - INVITED
- 2017 *XIV Convegno Nazionale AIMAT – XI Convegno Nazionale INSTM*, sessione *Metalli*, “Selective Laser Melting of Aluminum Alloys: Relations Among Process, Microstructure and Mechanical Properties”, Ischia Porto (Na), Italy (12-15 July)
- 2017 *XXIII AIV Conference*, session *Materials and Technologies for Additive Manufacturing*, “Laser powder bed fusion of Aluminium alloys: process, microstructure and mechanical properties”, Florence, Italy (5-7 April)
- 2016 *1° Workshop Nazionale su Additive Manufacturing per lo Spazio: Stato dell'arte, Sviluppi e Prospettive*, “Presente e futuro dell'AM al Politecnico di Torino”, ASI (Italian Space Agency), Tor Vergata, Rome, Italy (20-22 July)
- 2015 *Aerospace & Defense Meetings 5<sup>th</sup> edition*, “Materials development produced by Selective Laser Melting (SLM) for aerospace applications”, Turin, Italy (17-19 November) - INVITED
- 2015 *NanoItaly 1st edition*, “Additive Manufacturing for Robotic Components”, Rome, Italy (21-24 September) - INVITED
- 2014 *Workshop Strategic Research Cluster in Horizon 2020*, ASI (Italian Space Agency), Tor Vergata, Rome, Italy (13 January)
- 2013 *ECCOMAS Thematic Conference on Smart Structures and Materials SMART2013*, special session on *Application to robotics for human in space*, “Lightweight Metal Structures By DMLS”, Turin, Italy (24-26 June) - INVITED
- 2013 *6th International Conference on Advanced Research on Virtual and Rapid Prototyping (VRAP)*, “Aluminium Matrix Composites (AMCs) by DMLS”, Leiria, Portugal, (1-5 October)
- 2012 *ECCM15 – 15th European Conference on Composite Materials*, “Realization and characterization of AlSiMg/SiC composites by Direct Metal Laser Sintering”, Venice, Italy (24-28 June)
- 2009 *ICCM-17, 17th International Conference on Composite Materials*, “Co-continuous metal/ceramic composites made by Reactive Metal Penetration of commercial aluminium alloys into cordierite”, Edinburgh International Convention Centre (EICC), Edinburgh, UK, (27-31 July)

- 2008 *ETDCM8, Eighth International Seminar on Experimental Techniques and Design in Composite Materials, "Preparation and properties of NiAl-Al<sub>2</sub>O<sub>3</sub> co-continuous composites obtained by Reactive Metal Penetration", Castiadas, Costa Rei (Ca), Italy (3-6 October)*

## Patents

---

- 2012 *Giunto articolare per esoscheletro, in particolare per applicazioni aerospaziali*. On behalf of Politecnico di Torino e Fondazione Istituto Italiano di Tecnologia. Inventors: Atzeni E., Bruno E., Calignano F., Manfredi D., Ambrosio E.P. Date 16/10/2012, n. TO2012A000902.

## Publications

---

### Journal articles

- 2020 S. Parizia, G. Marchese, M. Rashidi, M. Lorusso, E. Hryha, D. Manfredi, S. Biamino. *Effect of heat treatment on microstructure and oxidation properties of Inconel 625 processed by LPBF*. Journal of Alloys and Compounds, 846, 156418
- 2020 G. Marchese, E. Bassini, S. Parizia, D. Manfredi, D. Ugues, M. Lombardi, P. Fino, S. Biamino. *Role of the chemical homogenization on the microstructural and mechanical evolution of prolonged heat-treated laser powder bed fused Inconel 625*. Materials Science and Engineering A, 796, 140007
- 2020 D. Gianoglio, S. Marola, L. Battezzati, A. Aversa, F. Bosio, M. Lombardi, D. Manfredi, M. Lorusso. *Banded microstructures in rapidly solidified Al-3 wt% Er*. Intermetallics 119, 106724
- 2020 S. Marola, D. Gianoglio, F. Bosio, A. Aversa, M. Lorusso, D. Manfredi, M. Lombardi, L. Battezzati. *Alloying AISi10Mg and Cu powders in laser Single Scan Tracks, melt spinning, and Laser Powder Bed Fusion*. Journal of Alloys and Compounds, 821, 153538
- 2020 G. Marchese, S. Parizia, M. Rashidi, A. Saboori, D. Manfredi, D. Ugues, M. Lombardi, E. Hryha, S. Biamino. *The role of texturing and microstructure evolution on the tensile behavior of heat-treated Inconel 625 produced via laser powder bed fusion*. Materials Science & Engineering A 769, 138500
- 2020 C. Testa, M. Cabrini, S. Lorenzi, T. Pastore, D. Manfredi, M. Lorusso, F. Calignano, M. Lombardi. *Corrosion behavior of Ti6Al4V alloy for biomedical application manufactured by Additive Manufacturing*. La Metallurgia Italiana, Issue 2, Pages 6-11
- 2019 P. Petrousek, T. Kvackaj, R. Kocisko, J. Bidulska, M. Luptak, D. Manfredi, M. Actis Grande, R. Bidulsky. *Influence of cryorolling on properties of L-PBF 316L stainless steel tested at 298K and 77K*. Acta Metallurgica Slovaca, Vol. 25, No. 4, p. 283-290
- 2019 M. Lorusso, A. Aversa, G. Marchese, F. Calignano, D. Manfredi, M. Pavese. *Understanding Friction and Wear Behavior at the Nanoscale of Aluminum Matrix Composites Produced by Laser Powder Bed Fusion*. Adv. Eng. Mater., 1900815, DOI: 10.1002/adem.201900815
- 2019 F. Bosio, A. Aversa, M. Lorusso, S. Marola, D. Gianoglio, L. Battezzati, P. Fino, D. Manfredi, M. Lombardi. *A time-saving and cost-effective method to process alloys by Laser Powder Bed Fusion*. Materials & Design, 181, 107949
- 2019 M. Cabrini, S. Lorenzi, C. Testa, T. Pastore, F. Brevi, S. Biamino, P. Fino, D. Manfredi, G. Marchese, F. Calignano and F. Scenini. *Evaluation of Corrosion Resistance of Alloy 625 Obtained by Laser Powder Bed Fusion*. Journal of The Electrochemical Society, 166 (11) C3399-C3408
- 2019 M. Cabrini, S. Lorenzi, C. Testa, F. Brevi, S. Biamino, P. Fino, D. Manfredi, G. Marchese, F. Calignano and T. Pastore. *Microstructure and Selective Corrosion of Alloy 625 Obtained by Means of Laser Powder Bed Fusion*. Materials, 12, 1742; doi:10.3390/ma12111742
- 2019 A. Aversa, G. Marchese, A. Saboori, E. Bassini, D. Manfredi, S. Biamino, D. Ugues, P. Fino, M. Lombardi. *New Aluminum Alloys Specifically Designed for Laser Powder Bed Fusion: A Review*. Materials, March 2019, Vol. 12, Issue 7, doi: 10.3390/ma12071007

- 2019 M. Cabrini, S. Lorenzi, T. Pastore, C. Testa, D. Manfredi, M. Lorusso, F. Calignano, P. Fino. *Statistical approach for electrochemical evaluation of the effect of heat treatments on the corrosion resistance of AlSi10Mg alloy by laser powder bed fusion*. *Electrochimica Acta*, May 2019, Vol. 305, pp. 459-466, doi: 10.1016/j.electacta.2019.03.103
- 2019 M. Cabrini, S. Lorenzi, T. Pastore, C. Testa, D. Manfredi, M. Lorusso, F. Calignano, M. Pavese, F. Andreatta. *Corrosion behavior of AlSi10Mg alloy produced by laser powder bed fusion under chloride exposure*. *Corrosion Science*, Vol. 152: 101-108, <https://doi.org/10.1016/j.corsci.2019.03.010>
- 2018 M. Cabrini, S. Lorenzi, T. Pastore, C. Testa, D. Manfredi, G. Cattano, F. Calignano. *Corrosion resistance in chloride solution of the AlSi10Mg alloy obtained by means of LPBF*. *Surface and Interface Analysis* 1–6. DOI: 10.1002/sia.6601
- 2018 M. Calandri, D. Manfredi, F. Calignano, E. P. Ambrosio, S. Biamino, R. Lupoi, D. Ugues. *Solution Treatment Study of Inconel 718 Produced by SLM Additive Technique in View of the Oxidation Resistance*. *Advanced Engineering Materials*, Vol. 20, No.11, DOI:10.1002/adem.201800351
- 2018 G. Addamo, O. A. Peverini, F. Calignano, D. Manfredi, F. Paonessa, G. Virone, G. Dassano. *Additive manufacturing of ka-band dual-polarization waveguide components*. *IEEE Antennas and Wireless Propagation Letters*, Vol. 17, No. 1: 2036-2040, DOI: 10.1109/LAWP.2018.2859828
- 2018 G. Addamo, O. A. Peverini, D. Manfredi, F. Calignano, F. Paonessa, G. Virone, R. Tascone. *3D Printing of High-Performance Feed Horns from Ku to V Bands*. *IEEE Transactions on Microwave Theory and Techniques*, Vol. 66, No. 8: 3589-3596, DOI: 10.1109/TMTT.2018.2854187
- 2018 S. Marola, D. Manfredi, G. Fiore, M.G. Poletti, M. Lombardi, P. Fino, L. Battezzati. *A comparison of Selective Laser Melting with bulk rapid solidification of AlSi10Mg alloy*. *Journal of Alloys and Compounds*, 742: 271-279, DOI: 10.1016/j.jallcom.2018.01.309
- 2018 M. Cabrini, F. Calignano, P. Fino, S. Lorenzi, M. Lorusso, D. Manfredi, C. Testa and T. Pastore. *Corrosion Behavior of Heat-Treated AlSi10Mg Manufactured by Laser Powder Bed Fusion*. *Materials* 11, 1051; doi:10.3390/ma11071051
- 2018 G. Marchese, M. Lorusso, S. Parizia, E. Bassini, J.-W. Lee, F. Calignano, D. Manfredi, M. Turner, H.-U. Hong, D. Ugues, M. Lombardi, S. Biamino. *Influence of heat treatments on microstructure evolution and mechanical properties of Inconel 625 processed by laser powder bed fusion*. *Materials Science & Engineering A* 729: 64–75, DOI: 10.1016/j.msea.2018.05.044
- 2018 F. Calignano, G. Cattano, D. Manfredi. *Manufacturing of thin wall structures in AlSi10Mg alloy by laser powder bed fusion through process parameters*. *Journal of Materials Processing Tech.*, 255: 773-783, DOI: 10.1016/j.jmatprotec.2018.01.029
- 2018 A. Lamberti, D. Manfredi, F. Calignano, C.F. Pirri. *TiO<sub>2</sub> nanotube-based smart 3D electrodes by anodic oxidation of additively manufactured Ti6Al4V structures*. *Materials Today Communications*, Vol. 15, Pages 165-170, DOI: 10.1016/j.mtcomm.2018.02.009
- 2018 C.G. Ferro, S. Varetta, P. Maggiore, M. Lombardi, S. Biamino, D. Manfredi and F. Calignano. *Design and characterization of trabecular structures for an anti-icing sandwich panel produced by additive manufacturing*. *Journal of Sandwich Structures & Materials*, DOI: 10.1177/1099636218780513
- 2018 A. Aversa, G. Marchese, D. Manfredi, M. Lorusso, F. Calignano, S. Biamino, M. Lombardi, P. Fino, M. Pavese. *Laser Powder Bed Fusion of a High Strength Al-Si-Zn-Mg-Cu Alloy*. *Metals*, 8, 300, DOI: 10.3390/met8050300
- 2018 O.A. Peverini, M. Lumia, G. Addamo, F. Paonessa, G. Virone, R. Tascone, F. Calignano, G. Cattano, D. Manfredi. *Integration of a H-plane Bend, a Twist and a Filter in Ku/K-band through Additive Manufacturing*. *IEEE Transactions on Microwave Theory and Techniques*, Print ISSN: 0018-9480, Online ISSN: 1557-9670, DOI: 10.1109/TMTT.2018.2809505
- 2018 F. Trevisan, F. Calignano, A. Aversa, G. Marchese, M. Lombardi, S. Biamino, D. Ugues, D. Manfredi. *Additive manufacturing of titanium alloys in the biomedical field: processes, properties and applications*. *J Appl Biomaterials & Functional Mat.*, Vol. 16, issue 2, page(s): 57-67; e-ISSN 2280-8000, PubMed 28967051, DOI: 10.5301/jabfm.5000371
- 2018 G. Marchese, A. Aversa, M. Lorusso, D. Manfredi, F. Calignano, M. Lombardi, S. Biamino, M. Pavese. *Development and Characterisation of Aluminium Matrix Nanocomposites AlSi10Mg/MgAl2O4 by Laser Powder Bed Fusion*. *Metals*, 8, 175, DOI:10.3390/met8030175



- 2018 A. Aversa, M. Moshiri, E. Librera, M. Hadi, G. Marchese, D. Manfredi, M. Lorusso, F. Calignano, S. Biamino, M. Lombardi, M. Pavese. *Single scan track analyses on aluminium based powders*. Journal of Materials Processing Tech., 255: 17-25, DOI: 10.1016/j.jmatprotec.2017.11.055
- 2017 D. Manfredi, R. Bidulski. *Laser Powder Bed Fusion of Aluminum Alloys*. Acta Metallurgica Slovaca, Volume 23, Issue 3, 2017, Pages 276-282, DOI: 10.12776/ams.v23i3.988
- 2017 O. Peverini, G. Addamo, M. Lumia, G. Virone, F. Calignano, M. Lorusso, D. Manfredi. *Additive Manufacturing of Ku/K-band Waveguide Filters: A Comparative Analysis among Selective Laser Melting and Stereo-lithography*. IET Microwaves, Antennas & Propagation, Online ISSN 1751-8733, DOI: 10.1049/iet-map.2017.0151
- 2017 Cabrini M, Lorenzi S, Pastore T, Pellegrini S, Testa C, Manfredi D, Calignano F, Fino P, Cattano G. *Evaluation of corrosion resistance of aluminum silicon alloys manufactured by LPBF*. Metallurgia Italiana, Vol. 109, Issue 7-8, July-August 2017, Pages 123-126
- 2017 A. Saboori, M. Dadkhah, M. Pavese, D. Manfredi, S. Biamino, P. Fino. *Hot deformation behavior of Zr-1%Nb alloy: Flow curve analysis and microstructure observations*. Materials Science & Engineering A 696: 366–373
- 2017 C. G. Ferro, S. Varetto, F. Vitti, P. Maggiore, M. Lombardi, S. Biamino, D. Manfredi, F. Calignano, *A Robust Multifunctional Sandwich Panel Design with Trabecular Structures by the Use of Additive Manufacturing Technology for a New De-Icing System*. Technologies 2017, 5, 35; doi:10.3390/technologies5020035
- 2017 A. Aversa, G. Marchese, M. Lorusso, F. Calignano, S. Biamino, E. P. Ambrosio, D. Manfredi, P. Fino, M. Lombardi and M. Pavese. *Microstructural and Mechanical Characterization of Aluminum Matrix Composites Produced by Laser Powder Bed Fusion*. Advanced Engineering Materials, record on line 17 May 2017, DOI: 10.1002/adem.201700180
- 2017 F. Calignano, D. Manfredi, E. P. Ambrosio, S. Biamino, M. Lombardi, E. Atzeni, A. Salmi, P. Minetola, L. Iuliano, P. Fino. *Overview on Additive Manufacturing Technologies*. Proceedings of the IEEE, vol 105 (4): 593-612
- 2017 O. A. Peverini, M. Lumia, F. Calignano, G. Addamo, M. Lorusso, E. P. Ambrosio, D. Manfredi, G. Virone. *Selective Laser Melting Manufacturing of Microwave Waveguide Devices*. Proceedings of the IEEE, vol 105 (4): 620-631
- 2017 A. Aversa, M. Lorusso, G. Cattano, D. Manfredi, F. Calignano, E.P. Ambrosio, S. Biamino, P. Fino, M. Lombardi, M. Pavese. *A study of the microstructure and the mechanical properties of an Al-Si-Ni alloy produced via selective laser melting*. Journal of Alloys and Compounds, 695: 1470-1478
- 2017 F. Trevisan, F. Calignano, M. Lorusso, A. Aversa, J. Pakkanen, E. P. Ambrosio, M. Lombardi, P. Fino, D. Manfredi. *On the selective laser melting (SLM) of AlSi10Mg alloy: process, microstructure and mechanical properties*. Materials, 10(1), 76; DOI:10.3390/ma10010076
- 2017 A. Aversa, M. Lorusso, F. Trevisan, E.P. Ambrosio, F. Calignano, D. Manfredi, S. Biamino, P. Fino, M. Lombardi, M. Pavese. *Effect of Process and Post-Process Conditions on the Mechanical Properties of an A357 Alloy Produced via Laser Powder Bed Fusion*. Metals, 7, 68
- 2017 G. Marchese, X. Garmendia Colera, F. Calignano, M. Lorusso, S. Biamino, P. Minetola and D. Manfredi. *Characterization and Comparison of Inconel 625 Processed by Selective Laser Melting and Laser Metal Deposition*. Advanced Engineering Materials, Vol 19 (3) DOI:10.1002/adem.201600635
- 2017 F. Calignano, M. Lorusso, J. Pakkanen, F. Trevisan, E.P. Ambrosio, D. Manfredi, P. Fino. *Investigation of accuracy and dimensional limits of part produced in aluminum alloy by selective laser melting*. International Journal of Advanced Manufacturing Technology, 88 (1): 451-458
- 2016 M. Cabrini, S. Lorenzi, T. Pastore, S. Pellegrini, C. Testa, D. Manfredi, E. P. Ambrosio, F. Calignano, M. Lorusso. *Studio della resistenza alla corrosione della lega AlSi10Mg ottenuta per Additive Manufacturing in soluzione di cloruri*. La Metallurgia Italiana, 12: 137-146, ISSN 0026-0843
- 2016 M. Lorusso, A. Aversa, D. Manfredi, F. Calignano, E.P. Ambrosio, D. Ugues, M. Pavese. *Tribological Behavior of Aluminum Alloy AlSi10Mg-TiB2 Composites Produced by Direct Metal Laser Sintering (DMLS)*. Journal of Materials Engineering and Performance, 25 (8): 3152-3160

- 2016 G. Marchese, E. Bassini, M. Calandri, E. P. Ambrosio, F. Calignano, M. Lorusso, D. Manfredi, M. Pavese, S. Biamino, P. Fino. *Microstructural investigation of as-fabricated and heat-treated Inconel 625 and Inconel 718 fabricated by direct metal laser sintering: contribution of Politecnico di Torino and Istituto Italiano di Tecnologia (IIT) di Torino*. Metal Powder Report, 71(4): 273-278
- 2016 M. Cabrini, S. Lorenzi, T. Pastore, S. Pellegrini, E.P. Ambrosio, F. Calignano, D. Manfredi, M. Pavese, P. Fino. *Effect of heat treatment on corrosion resistance of DMLS AlSi10Mg alloy*. Electrochimica Acta, Vol 206: 346–355
- 2016 J. Pakkanen, F. Calignano, F. Trevisan, M. Lorusso, E.P. Ambrosio, D. Manfredi, P. Fino. *Study of Internal Channel Surface Roughnesses Manufactured by Selective Laser Melting in Aluminum and Titanium Alloys*. Metallurgical and Materials Transactions A, 47 (8): 3837-3844
- 2016 E. Fantino, A. Chiappone, I. Roppolo, D. Manfredi, R. Bongiovanni, C. F. Pirri, and F. Calignano. *3D Printing of Conductive Complex Structures with In Situ Generation of Silver Nanoparticles*. Advanced Materials, 28 (19): 3712-3717
- 2016 A. Chiappone, E. Fantino, I. Roppolo, M. Lorusso, D. Manfredi, P. Fino, C. F. Pirri, and F. Calignano. *3D Printed PEG-Based Hybrid Nanocomposites Obtained by Sol–Gel Technique*. ACS Appl. Mater. Interfaces, 8 (8): 5627–5633
- 2016 M. Cabrini, S. Lorenzi, T. Pastore, S. Pellegrini, M. Pavese, P. Fino, E. P. Ambrosio, F. Calignano and D. Manfredi. *Corrosion resistance of direct metal laser sintering AlSiMg alloy*. Surface and Interface Analysis, 48 (8): 818-826
- 2016 M. Cabrini, S. Lorenzi, T. Pastore, S. Pellegrini, D. Manfredi, P. Fino, S. Biamino, C. Badini. *Evaluation of corrosion resistance of Al–10Si–Mg alloy obtained by means of Direct Metal Laser Sintering*. Journal of Materials Processing Tech., 231 (5): 326–335
- 2016 M. Fasano, L. Ventola, F. Calignano, D. Manfredi, E. P. Ambrosio, E. Chiavazzo, P. Asinari. *Passive heat transfer enhancement by 3D printed Pitot tube based heat sink*. International Communications in Heat and Mass Transfer, 74: 36-39
- 2015 F. Calignano, T. Tommasi, D. Manfredi, A. Chiolerio. *Additive Manufacturing of a Microbial Fuel Cell—A detailed study*. Scientific Reports, 5: 17373
- 2015 O.A. Peverini, G. Addamo, R. Tascone, G. Virone, P. Cecchini, R. Mizzoni, F. Calignano, E.P. Ambrosio, D. Manfredi, P. Fino. *Enhanced Topology of E-Plane Resonators for High-Power Satellite Applications*. IEEE Transactions on Microwave Theory and Techniques, 63 (10): 3361-3373
- 2014 S. Hernández, V. Cauda, D. Hidalgo, V.F. Rivera, D. Manfredi, A. Chiodoni, F.C. Pirri. *Fast and low-cost synthesis of 1D ZnO-TiO<sub>2</sub> core-shell nanoarrays: characterization and enhanced photo-electrochemical performance for water splitting*. Journal of Alloys and Compounds, 615: 530-537
- 2014 S. Stassi, V. Cauda, G. Canavese, D. Manfredi, A. Chiodoni, C.F. Pirri. *Shape-controlled synthesis of silver nature-like spiky particles for piezoresistive sensor applications*. European Journal of Inorganic Chemistry, 16: 2711-2719
- 2014 D. Hidalgo, R. Messina, A. Sacco, D. Manfredi, S. Vankova, E. Garrone, G. Saracco, S. Hernández. *Thick mesoporous TiO<sub>2</sub> films through a sol-gel method involving a non-ionic surfactant: Characterization and enhanced performance for water photo-electrolysis*. International Journal of Hydrogen Energy, 39 (36): 21512-21522
- 2014 L. Ventola, F. Robotti, M. Dialameh, F. Calignano, D. Manfredi, E. Chiavazzo, P. Asinari. *Rough surfaces with enhanced heat transfer for electronics cooling by direct metal laser sintering*. International Journal of Heat and Mass Transfer, 75: 58-74
- 2014 E. Chiavazzo, L. Ventola, F. Calignano, D. Manfredi, P. Asinari. *A sensor for direct measurement of small convective heat fluxes: Validation and application to micro-structured surfaces*. Experimental Thermal and Fluid Science, 55: 42-53
- 2014 M. Krishnan, E. Atzeni, R. Canali, F. Calignano, D. Manfredi, E.P. Ambrosio, L. Iuliano. *On the effect of process parameters on properties of AlSi10Mg parts produced by DMLS*. Rapid Prototyping Journal, 20 (6): 449-458

- 2013 D. Manfredi, F. Calignano, E.P. Ambrosio, M. Krishnan, R. Canali, S. Biamino, M. Pavese, E. Atzeni, L. Iuliano, P. Fino, C. Badini. *Direct Metal Laser Sintering: an additive manufacturing technology ready to produce lightweight structural parts for robotic applications*. La Metallurgia Italiana, 105 (10): 15-25, ISSN 0026-0843
- 2013 A. Lamberti, A. Sacco, S. Bianco, D. Manfredi, M. Armandi, M. Quaglio, E. Tresso, C.F. Pirri. *An easy approach for the fabrication of TiO<sub>2</sub> nanotube-based transparent photoanodes for Dye-sensitized Solar Cells*. Solar Energy, 95: 90–98
- 2013 A. Chiolerio, M. Lombardi, A. Guerriero, G. Canavese, S. Stassi, R. Gazia, V. Cauda, D. Manfredi, A. Chiodoni, A. Verna, M. Cocuzza, L. Montanaro, C.F. Pirri. *Effect of the fabrication method on the functional properties of BaTiO<sub>3</sub> – PVDF nanocomposites*. Journal of Materials Science, 48: 6943–6951
- 2013 A. Lamberti, N. Garino, A. Sacco, S. Bianco, D. Manfredi, C. Gerbaldi. *Vertically aligned TiO<sub>2</sub> nanotube array for high rate Li-based micro-battery anodes with improved durability*. Electrochimica Acta, 102: 233-239
- 2013 A. Lamberti, A. Sacco, S. Bianco, M. Quaglio, D. Manfredi, C.F. Pirri. *Enhancement of electron lifetime in Dye-sensitized Solar Cell using anodically grown TiO<sub>2</sub> nanotube/nanoparticle composite photoanodes*. Microelectronic Engineering, 111: 137-142
- 2013 D. Manfredi, F. Calignano, M. Krishnan, R. Canali, E.P. Ambrosio, E. Atzeni. *From Powders to Dense Metal Parts: Characterization of a Commercial AlSiMg Alloy Processed through Direct Metal Laser Sintering*. Materials, 6 (3): 856-869
- 2013 A. Lamberti, A. Sacco, D. Hidalgo, S. Bianco, D. Manfredi, M. Quaglio, E. Tresso, and C.F. Pirri. *High electron lifetime in transparent TiO<sub>2</sub> nanotubes-based photoanode for front-illuminated dye-sensitized solar cell*. Acta Physica Polonica A, 123 (2): 376-379
- 2013 F. Calignano, D. Manfredi, E.P. Ambrosio, L. Iuliano, P. Fino. *Influence of process parameters on surface roughness of aluminum parts produced by DMLS*. International Journal of Advanced Manufacturing Technology, 67: 2743–2751
- 2013 A. Lamberti, A. Sacco, S. Bianco, D. Manfredi, F. Cappelluti, S. Hernandez, M. Quaglio, C. F. Pirri. *Charge transport improvement employing TiO<sub>2</sub> nanotube arrays as front-side illuminated Dye-sensitized Solar Cell photoanodes*. Physical Chemistry Chemical Physics, 15 (7): 2596–2602
- 2012 A. Sacco, A. Lamberti, R. Gazia, S. Bianco, D. Manfredi, N. Shahzad, F. Cappelluti, S. Ma, E. Tresso. *High efficiency Dye-sensitized Solar Cell exploiting sponge-like ZnO nanostructures*. Physical Chemistry Chemical Physics, 14 (47): 16203-16208
- 2012 A. Favetto, E.P. Ambrosio, S. Appendino, A. Battezzato, F. Chen Chen, D. Manfredi, M. Mousavi, F. Pescarmona. *Embedding an Exoskeleton Hand in the Astronaut's EVA Glove: Feasibility and Ideas*. International Journal of Aerospace Science, 1 (4): 68-76, ISSN 2169-8872
- 2012 S. Stassi, V. Cauda, G. Canavese, D. Manfredi, C. F. Pirri. *Synthesis and characterization of gold nanostars as filler of tunneling conductive polymer composites*. European Journal of Inorganic Chemistry, 16: 2669–2673
- 2011 S. Biamino, E.P. Ambrosio, D. Manfredi, P. Fino and C. Badini. *Al<sub>2</sub>O<sub>3</sub>-ZrO<sub>2</sub> nanocomposites produced by solution combustion synthesis followed by ultrasonic milling*. Journal of Ceramic Processing Research, 12 (2): 207-211, ISSN: 1229-9162
- 2010 D. Manfredi, M. Pavese, S. Biamino, A. Antonini, P. Fino, C. Badini. *Microstructure and mechanical properties of co-continuous metal/ceramic composites obtained from reactive metal penetration of commercial aluminium alloys into cordierite*. Composites Part A: Applied Science and Manufacturing, 41 (5): 639-645
- 2009 D. Manfredi, M. Pavese, S. Biamino, P. Fino, C. Badini. *Preparation and properties of NiAl-Al<sub>2</sub>O<sub>3</sub> co-continuous composites obtained by reactive metal penetration*. Composites Science and Technology, 69: 1777-1782
- 2009 L. Fusco, D. Manfredi, S. Biamino, M. Pavese, P. Fino, C. Badini. *SiC-based multilayered composites containing short carbon fibres obtained by tape casting*. Composites Science and Technology, 69: 1772-1776

- 2008 D. Manfredi, M. Pavese, S. Biamino, P. Fino, C. Badini. *NiAl(Si)/Al<sub>2</sub>O<sub>3</sub> co-continuous composites by double reactive metal penetration into silica preforms*. Intermetallics, 16 (4): 580-583

#### Book chapters

- 2014 D. Manfredi, F. Calignano, M. Krishnan, R. Canali, E.P. Ambrosio, S. Biamino, D. Ugues, M. Pavese, P. Fino. *Additive manufacturing of Al alloys and Aluminium Matrix Composites (AMCs)*. In: Light Metal Alloys Applications, edited by Waldemar A. Monteiro. ISBN 978-953-51-1588-5, InTech, pp. 3-34
- 2014 S. Stassi, V. Cauda, G. Canavese, D. Manfredi, I. Roppolo, P. Martino, A. Chiolerio. *Nanosized Gold and Silver spherical, spiky and multi-branched particles*. In: Handbook of Nanomaterials Properties, vol.1. Editors: B. Bhushan, D. Luo, S.R. Schricker, W. Sigmund, S. Zauscher. Springer Book, ISBN: 978-3-642-31106-2, pp. 179-212
- 2011 C. Badini, C. M. Vega Bolivar, A. Antonini, S. Biamino, P. Fino, D.G. Manfredi, E.P. Ambrosio, F. Acerra, G. Campanile and M. Pavese. *A Simple Approach to the Study of the Ageing Behaviour of Laser Beam and Friction Stir Welds between Similar and Dissimilar Alloys*. In: Aluminium Alloys, Theory and Applications, edited by Tibor Kvackaj. ISBN: 978-953-307-244-9, InTech, pp. 71-92

#### International Conference Proceedings

- 2019 Calignano F., Peverini O.A., Addamo G., Paonessa F., Manfredi D., Galati M., Salmi A., Atzeni E., Minetola P., Iuliano L. *High-performance microwave waveguide devices produced by laser powder bed fusion process*. 12th CIRP Conference on Intelligent Computation in Manufacturing Engineering, Gulf of Naples, Italy, 18 - 20 July 2018, Procedia CIRP, Vol. 79, 2019, pp. 85-88, ISSN: 2212-8271
- 2019 Addamo G., Peverini O.A., Paonessa F., Virone G., Tascone R., Manfredi D., Calignano F., Dassano G. *Additive Manufacturing technology for high performances feed horn*. 2018 IEEE Antennas and Propagation Society International Symposium and USNC/URSI National Radio Science Meeting, Article number 8608753, pp. 1881-1882, doi: 10.1109/APUSNCURSINRSM.2018.8608753
- 2018 S. Parizia, G. Marchese, M. Rashidi, S. Biamino, D. Manfredi, E. Hryha. *High Temperature Oxidation Behavior of DMLS produced Inconel 625*. Proceedings of the Euro PM2018 Congress & Exhibition, 14-18 October 2018, Bilbao, Spain. ISBN: 978-1-899072-50-7
- 2018 G. Cattano, M. Lorusso, F. Calignano, M. Actis Grande, D. Manfredi, M. Lombardi, P. Fino. *Nanoindentation test conducted on single scan tracks for the development of new high entropy alloys by selective laser melting*. Proceedings of the Euro PM2018 Congress & Exhibition, 14-18 October 2018, Bilbao, Spain. ISBN: 978-1-899072-50-7
- 2018 G. Marchese, G. Basile, S. Parizia, M. Lorusso, D. Manfredi, F. Calignano, D. Ugues, M. Lombardi, S. Biamino. *Study and characterization of annealed Inconel 625 fabricated by laser powder bed fusion*. Proceedings of the Euro PM2018 Congress & Exhibition, 14-18 October 2018, Bilbao, Spain. ISBN: 978-1-899072-50-7
- 2018 A. Aversa, F. Bosio, M. Lorusso S. Marola, D. Manfredi, L. Battezzati, P. Fino, M. Lombardi. *Laser Single Scan Tracks of New Aluminium Alloys Compositions*. Proceedings of the Euro PM2018 Congress & Exhibition, 14-18 October 2018, Bilbao, Spain. ISBN: 978-1-899072-50-7
- 2018 A. Aversa, G. Marchese, M. Lorusso, D. Manfredi, M. Lombardi, M. Pavese. *Laser Powder Bed Fusion of an Al-Si-Zn-Mg-Cu alloy: Effect of the Silicon Content on the Consolidation Phenomena*. Proceedings of the Euro PM2018 Congress & Exhibition, 14-18 October 2018, Bilbao, Spain. ISBN: 978-1-899072-50-7
- 2018 M. Lorusso, D. Manfredi, F. Calignano, M. Actis Grande. *Nano- Micro- Macro- Hardness Of Lpbf 316L Austenitic Stainless Steel*. Proceedings of the 7th International Conference on Additive Technologies iCAT 2018, Maribor, Slovenia, 10. - 11. October 2018 ; editors Igor Drstvenšek et al. - Digital ed. - Ljubljana: Interesansa-zavod, 2018 - ISBN 978-961-288-789-6
- 2018 Calignano F., Cattano G., Iuliano L., Manfredi D. *Controlled porosity structures in aluminum and titanium alloys by selective laser melting*. In: Industrializing Additive Manufacturing - Proceedings of Additive

Manufacturing in Products and Applications - AMPA2017, Editors Mirko Meboldt and Christoph Klahn, Springer International Publishing, DOI 10.1007/978-3-319-66866-6\_18, ISBN 978-3-319-66865-9

- 2017 Pakkanen J, Manfredi D, Minetola P, Fino P, Iuliano L. *Experimental validation of topology optimization of Additive Manufactured polymeric beams subjected to three-point bending test*. In: SIMAM17 – Book of abstracts p. 200-201, MUNICH: Technical University of Munich, Munich (Germany), 11th-13th October, 2017
- 2017 Aversa A., Moshiri M., Tusacciu S., Busatto M., Lai M., Calignano F., Manfredi D, Biamino S., Pavese M., Lombardi M. *A Comparison Of The Laser Powder Interaction In Laser Powder Bed Fusion And Direct Energy Deposition Processes*. Proceedings of the Euro PM2017 Congress & Exhibition, 1-5 October 2017, Milan, Italy. ISBN: 978-1-899072-49-1
- 2017 Cattano G., Calignano F., Lorusso M., Actis M., Biamino S., Manfredi D, Lombardi M., Fino P. *A Preliminary Study On High Entropy Alloys For Laser Powder Bed Process*. Proceedings of the Euro PM2017 Congress & Exhibition, 1-5 October 2017, Milan, Italy. ISBN: 978-1-899072-49-1
- 2017 Marchese G., Parizia S., Bassini E., Lorusso M., Manfredi D, Calignano F., Lombardi M., Ugues D., Biamino S. *A Preliminary Study On High Entropy Alloys For Laser Powder Bed Process*. Proceedings of the Euro PM2017 Congress & Exhibition, 1-5 October 2017, Milan, Italy. ISBN: 978-1-899072-49-1
- 2017 Trevisan F., Calignano F., Lorusso M., Lombardi M., Manfredi D, Fino P. *Selective Laser Melting Of Chemical Pure Copper Powders*. Proceedings of the Euro PM2017 Congress & Exhibition, 1-5 October 2017, Milan, Italy. ISBN: 978-1-899072-49-1
- 2017 Lorusso M., Trevisan F., Aversa A., Calignano F., Ambrosio E., Pavese M., Lombardi M., Fino P., Manfredi D. *Macro Micro And Nano Hardness And Macro And Nano Wear Behavior Of Aluminum Alloys By Laser Powder Bed Fusion*. EUROMAT 2017, Thessaloniki (Greece), 17-22 September 2017
- 2017 Marola S., Manfredi D., Fiore G., Poletti M.G., Lombardi M., Fino P., Battezzati L. *Additive Manufacturing (AM) as a Rapid Solidification process: a study on Al-Si alloys*. EUROMAT 2017, Thessaloniki (Greece), 17-22 September 2017
- 2017 Manfredi D, Calignano F. *Laser Powder Bed Fusion of Aluminum, Titanium and Nickel Based Alloys: Materials and Design Investigations*. International Conference on Electromagnetics in Advanced Applications (ICEAA) 2017, 11-15 Sept. 2017, Verona, Italy, e-ISBN 978-1-5090-4451-1, PoD-ISBN 978-1-5090-4452-8, INSPEC Accession number 17244757, DOI: 10.1109/ICEAA.2017.8065546
- 2017 Addamo G., Peverini O.A., Manfredi D, Calignano F., Lumia M., Virone G. *Application of selective laser melting to the manufacturing of antenna-feed chain components*. International Conference on Electromagnetics in Advanced Applications (ICEAA) 2017, 11-15 Sept. 2017, Verona, Italy, e-ISBN 978-1-5090-4451-1, PoD-ISBN 978-1-5090-4452-8, INSPEC Accession number 17244553, DOI: 10.1109/ICEAA.2017.8065374
- 2017 Cabrini M., Lorenzi S., Pastore T., Testa C., Manfredi D, Calignano F., Lorusso M., Fino P. *Corrosion behavior of aluminum-silicon alloys obtained by Direct Metal Laser Sintering*. Proceedings of the EUROCORR 2017 jointly with 20th International Corrosion Congress & Process Safety Congress 2017, Prague, Czech Republic, 3-7 September 2017
- 2017 S. Marola, D. Manfredi, G. Fiore, M. G. Poletti, M. Lombardi, P. Fino, L. Battezzati. *Rapid Solidification of Al-Si alloys: a comparison with Additive Manufacturing (AM)*. 16th International Conference on Rapidly Quenched and Metastable Materials (RQ16), 27 August - 01 September 2017, Leoben, Austria
- 2017 Peverini O.A., Lumia M., Addamo G., Calignano F., Virone G., Ambrosio E.P., Manfredi D, Riccardo T., *Integration of RF functionalities in microwave waveguide components through 3D metal printing*, in Proc. of 2017 IEEE MTT Intern. Microw. Symp. (IMS), Honolulu, June 2017.
- 2017 Marola S., Manfredi D, Fiore G., Poletti M.G., Lombardi M., Fino P., Battezzati L. *Rapid Solidification Al-Si alloys: a comparison of processing techniques*. 24th International Symposium on Metastable, Amorphous and Nanostructured Materials (ISMANAM 2017) 18th-23rd June, Palacio Miramar, San Sebastián – Donostia (Guipúzcoa), Spain. Editor: Arcady Zhukov. ISBN: 978-84-697-3162-8. Pag.93
- 2017 O.A. Peverini, M. Lumia, F. Calignano, D. Manfredi, G. Addamo, M. Lorusso, E.P. Ambrosio, G. Virone, P. Fino, R. Tascone. *Manufacturing of waveguide components for SatCom through selective laser melting*. 11th European Conference on Antennas and Propagation, EUCAP 2017; Paris; France 19-24 March. Pages 563-566

- 2017 J. Pakkanen, D. Manfredi, P. Minetola, L. Iuliano. *About the Use of Recycled or Biodegradable Filaments for Sustainability of 3D Printing*. In: Campana G., Howlett R., Setchi R., Cimatti B. (eds) Sustainable Design and Manufacturing 2017. SDM 2017. Smart Innovation, Systems and Technologies, vol 68. Springer, Cham, pp.776-785. DOI: 10.1007/978-3-319-57078-5\_73
- 2016 F. Calignano, F. Monaco, M. Calandri, G. Marchese, E.P. Ambrosio, M. Lorusso, D. Manfredi, D. Ugues. *Selective laser melting for heat exchanger*. Proceeding 6th International Conference on Additive Technologies iCAT2016, Nürnberg, Germany, 29-30 November 2016, editors Igor Drstvenšek and Michael Schmidt. - Digital ed. - Ljubljana, 2016, ISBN: 978-961-285-537-6
- 2016 M. Lorusso, A. Aversa, G. Marchese, F. Calignano, E. P. Ambrosio, M. Pavese, D. Ugues, D. Manfredi, P. Fino. *Understanding wear and friction behavior of DMLS Aluminum Matrix Composites by nanoscratching*. Proceeding 6th International Conference on Additive Technologies iCAT2016, Nürnberg, Germany, 29-30 November 2016, editors Igor Drstvenšek and Michael Schmidt. - Digital ed. - Ljubljana, 2016, ISBN: 978-961-285-537-6
- 2016 A. Aversa, M. Lorusso, F. Trevisan, D. Manfredi, F. Calignano, S. Biamino, E. P. Ambrosio, P. Fino, M. Pavese. *Microstructural and Mechanical Properties of Al-Si-Ni alloy Produced by Direct Metal Laser Sintering*. Proceedings of the World PM2016 Congress & Exhibition, Hamburg, Germany 9-13 October. ISBN: 978-1-899072-48-4
- 2016 G. Marchese, M. Lorusso, F. Calignano, E. P. Ambrosio, D. Manfredi, M. Pavese, S. Biamino, D. Ugues, P. Fino. *Microstructural Investigation of Heat Treated Inconel 625 Fabricated Through Direct Metal Laser Sintering*. Proceedings of the World PM2016 Congress & Exhibition, Hamburg, Germany 9-13 October. ISBN: 978-1-899072-48-4
- 2016 F. Trevisan, F. Calignano, M. Lorusso, J. Pakkanen, E.P. Ambrosio, M. Lombardi, M. Pavese, D. Manfredi, P. Fino. *Effects Of Heat Treatments On A357 Alloy Produced By Selective Laser Melting*. Proceedings of the World PM2016 Congress & Exhibition, Hamburg, Germany 9-13 October. ISBN: 978-1-899072-48-4
- 2016 Marchese, G., Lorusso, M., Calignano, F., Ambrosio, E. P., Manfredi, D., Pavese, M., Biamino, S., Ugues, D. and Fino, P. *Inconel 625 by Direct Metal Laser Sintering: Effects of the Process Parameters and Heat Treatments on Microstructure and Hardness*, in Superalloys 2016: Proceedings of the 13th International Symposium of Superalloys (eds M. Hardy, E. Huron, U. Glatzel, B. Griffin, B. Lewis, C. Rae, V. Seetharaman and S. Tin), John Wiley & Sons, Inc., Hoboken, NJ, USA (2016). doi: 10.1002/9781119075646.ch107
- 2015 C. Semini, J. Goldsmith, D. Manfredi, F. Calignano, E.P. Ambrosio, J. Pakkanen, D.G. Caldwell. *Additive manufacturing for agile legged robots with hydraulic actuation*. In International Conference on Advanced Robotics (ICAR), 2015, pp.123-129, Istanbul, Turkey, 27-31 July 2015 - DOI: 10.1109/ICAR.2015.7251444
- 2015 O.A. Peverini, G. Addamo, G. Virone, R. Tascone, F. Calignano, D. Manfredi, E.P. Ambrosio, P. Fino. *Additive Manufacturing of Ku/K Band Waveguide Filters for Space Applications*. In IWMF 2015: International Workshop of Microwave Filters, 6th CNES/ESA, Toulouse, France 23rd-25th March 2015
- 2014 M. Cabrini, S. Lorenzi, T. Pastore, S. Pellegrini, P. Fino, S. Biamino, C. Badini, D. Manfredi. *Corrosion resistance of Direct Laser Sintering AlSiMg alloy*. In Eurocorr 2014 - European Corrosion Congress, Pisa, Italy, 8-12 September 2014. Conf. Proceedings AIM, ISBN: 978-3-89746-159-8
- 2014 Ventola L., Chiavazzo E., Calignano F., Manfredi D., Asinari P. *Heat Transfer Enhancement by Finned Heat Sinks with Micro-structured Roughness*. In Journal of Physics: Conference Series, XIV Conference on Theoretical Nuclear Physics, Cortona, Italy, ISSN 1742-6596, Editor: Bristol: Institute of Physics Publishing, 2014, DOI: 10.1088/1742-6596/494/1/012009
- 2014 Calignano F., Manfredi D., Ambrosio EP., Biamino S., Pavese M., Fino P. *Direct fabrication of joints based on direct metal laser sintering in aluminum and titanium alloys*. Procedia CIRP, 2014. DOI: 10.1016/j.procir.2014.03.155
- 2013 Calignano F., Manfredi D. *Production of overhanging structures by DMLS*. In: The International Conference on Advanced Research in Virtual and Rapid Prototyping (VRAP 2013). High Value Manufacturing – Bartolo et al., Taylor & Francis Group, London, pp. 61–64, ISBN: 9781138001374
- 2013 Krishnan M., Atzeni E., Canali R., Manfredi D., Calignano F. Ambrosio E., Iuliano L. *Influence of post-processing operations on mechanical properties of AlSi10Mg parts by DMLS*. In: The International Conference on Advanced Research in Virtual and Rapid Prototyping (VRAP 2013). High Value Manufacturing – Bartolo et al., Taylor & Francis Group, London, pp. 243-248, ISBN: 9781138001374

- 2013 Manfredi D., Canali R., Krishnan M., Ambrosio E.P., Calignano F., Pavese M., Miranti L., Belardinelli S., Biamino S., Fino P. *Aluminium matrix composites (AMCs) by DMLS*. In: The International Conference on Advanced Research in Virtual and Rapid Prototyping (VRAP 2013). High Value Manufacturing – Bartolo et al., Taylor & Francis Group, London, pp. 249-254, ISBN: 9781138001374
- 2012 Manfredi D., Ambrosio E.P., Calignano F., Canali R., Krishnan M., Biamino S., Pavese M., Fino P., *Optimization of process parameters for AlSiMg/SiC composites by DMLS*, Proceedings of 4th International Conference on Additive Technologies iCAT 2012, 19th-21st September 2012, DAAAM International Specialized Conference, Maribor, Slovenia. ISBN: 9783901509926, ISSN: 1992-5093
- 2012 Paleari M., Ambrosio E.P., Appendino S., Ariano P., Battezzato A., Calignano F., Manfredi D., Margaria V., Pescarmona F. *HExEC: A Hand Exoskeleton Designed to be Embedded in the Astronaut's EVA Glove*. i-SAIRAS: International Symposium on Artificial Intelligence, Robotics and Automation in Space, 4-7 September, Turin, Italy
- 2012 Manfredi D., Ambrosio E.P., Calignano F., Canali R., Krishnan M., Biamino S., Pavese M., Fino P. *Realization and characterization of AlSiMg/SiC composites by Direct Metal Laser Sintering*, Proceedings of ECCM15 – 15th European Conference on Composite Materials, 24-28 June 2012, Venice, ISBN: 978-88-88785-33-2
- 2012 S. Marchisio, D. Manfredi, F.A. Deorsola, S. Biamino, P. Fino, M. Pavese. *Carbon nanotubes -reinforced aluminium with improved yield strength and toughness*. Proceedings of ECCM15 – 15th European Conference on Composite Materials, 24-28 June 2012, Venice, ISBN: 978-88-88785-33-2
- 2011 S. Marchisio, D. Manfredi, E.P. Ambrosio, F.A. Deorsola and M. Pavese. *Aluminium/CNTs Composites by PAFES*. Proceedings of EURO PM 2011 International Powder Metallurgy Congress & Exhibition, 9-12 October 2011, Barcelona, Vol 2, ISBN/ISSN: 978-1-899072-23-1
- 2011 F. Chen Chen, A. Favetto, M. Mousavi, E. P. Ambrosio, S. Appendino, A. Battezzato, D. Manfredi, F. Pescarmona, B. Bona. *Human Hand: Kinematics, Statics and Dynamics*. 41st International Conference on Environmental Systems (ICES), Portland, Oregon, 17-21 July 2011, AIAA (American Institute of Aeronautics and Astronautics) 2011-5249
- 2011 M. Mousavi, E. P. Ambrosio, S. Appendino, F. Chen Chen, A. Favetto, D. Manfredi, F. Pescarmona, A. Somà. *Spacesuits and EVA Gloves Evolution and Future Trends of Extravehicular Activity Gloves*. 41st International Conference on Environmental Systems (ICES), Portland, Oregon, 17-21 July 2011, AIAA (American Institute of Aeronautics and Astronautics) 2011-5147
- 2011 S. Appendino, E. P. Ambrosio, F. Chen Chen, A. Favetto, D. Manfredi, M. Mousavi and F. Pescarmona. *Effects of EVA Glove on Hand Performance*. 41st International Conference on Environmental Systems (ICES), Portland, Oregon, 17-21 July 2011, AIAA (American Institute of Aeronautics and Astronautics) 2011-5085
- 2010 A. Favetto, F. Chen Chen, E. P. Ambrosio, D. Manfredi, G. C. Calafiore. *Towards a Smart EVA Glove (Hand Exoskeleton)*. ROBIO 2010 IEEE International Conference on Robotics and Biomimetics, Tianjin, China, 14-18 December, 2010, IEEE ISBN 978-1-4244-9317-3
- 2010 S. Biamino, M. Pavese, D. Manfredi, E.P. Ambrosio, P. Fino, C. Badini. *Tape Casting and Pressureless Sintering of ZrB2-SiC Composites*. 7th International Conference on High Temperature Ceramic Matrix Composites (HT-CMC 7), Bayreuth, Germany, 20-22 September, 2010
- 2009 M. Pavese, D. Manfredi, S. Biamino, P. Fino, C. Badini. *Intermetallic/ceramic co-continuous composites obtained by double reactive metal penetration*. European Congress on Advanced Materials and Processes EUROMAT2009, Glasgow, UK, 7-10 September 2009
- 2009 D. Manfredi, M. Pavese, A. Antonini, S. Biamino, P. Fino, C. Badini. *Co-continuous metal/ceramic composites made by reactive metal penetration of commercial aluminium alloys into cordierite*. 17th International Conference on Composite Materials ICCM17, Edinburgh, UK, 27-31 July 2009
- 2009 P. Fino, D. Manfredi, M. Pavese, S. Biamino, C. Badini. *NiAl/Al2O3 co-continuous composites obtained by double reactive metal penetration*. In Proc. of The 11th International Conference and Exhibition of the European Ceramic Society ECERS, Krakow, Poland, 21-25 June 2009, ISBN 978-83-60958-45-2
- 2008 D. Manfredi, M. Pavese, S. Biamino, P. Fino, C. Badini. *Preparation and properties of NiAl-Al2O3 co-continuous composites obtained by reactive metal penetration*. 8th Seminar on Experimental Techniques and Design in Composite Materials ETDCM8, Castiadas Costa Rei Sardinia, Italy, 3-6 October 2007, book of abstracts, p. 143-144

- 2008 L. Fuso, D. Manfredi, S. Biamino, M. Pavese, P. Fino, C. Badini. *SiC-based multilayered composites containing short carbon fibers obtained by tape casting*. 8th Seminar on Experimental Techniques and Design in Composite Materials ETDCM8, Castiadas Costa Rei Sardinia, Italy, 3-6 October 2007, book of abstracts, p. 139-140

#### National Conference Proceedings

- 2018 A. Aversa, F. Bosio, S. Marola, M. Lorusso, D. Manfredi, M. Lombardi, L. Battezzati, P. Fino. *Laser single scan tracks of new formulations of aluminium alloys for Additive Manufacturing (AM)*. Extended abstracts from Materiali Metallici e Processi Produttivi Innovativi per l'Aerospazio, Associazione Italiana di Metallurgia (AIM) 19-20 July 2018, Napoli, Italy
- 2017 Manfredi D, Biamino S., Lombardi M., Pavese M., Fino P. *Selective Laser Melting of Aluminum Alloys: Relations among Process, Microstructure and Mechanical Properties*. Abstracts from XIV AIMAT National Congress, XI National Conference on Materials Science and Technology, July 2017, Ischia, Italy, J Appl Biomater Funct Mater, Wichtig Publishing, e-ISSN 2280-8000, DOI: 10.5301/jabfm.5000369
- 2017 Cabrini M., Lorenzi S., Pastore T., Testa C., Manfredi D, Calignano F., Lorusso M., Fino P. *Evaluation of Corrosion Resistance of AlSi10Mg and AlSi7Mg Alloys Manufactured by LPBF*. Abstracts from XIV AIMAT National Congress, XI National Conference on Materials Science and Technology, July 2017, Ischia, Italy, J Appl Biomater Funct Mater, Wichtig Publishing, e-ISSN 2280-8000, DOI: 10.5301/jabfm.5000369
- 2017 Aversa A., Tusacciu S., Reggio E., Busatto M., Lai M., Manfredi D, Biamino S., Fino P., Lombardi M. *Direct Energy Deposition of AlSi10Mg*. Abstracts from XIV AIMAT National Congress, XI National Conference on Materials Science and Technology, July 2017, Ischia, Italy, J Appl Biomater Funct Mater, Wichtig Publishing, e-ISSN 2280-8000, DOI: 10.5301/jabfm.5000369
- 2016 Aversa A., Lorusso M., Manfredi D., Calignano F., Fino P., Pavese M. *Selective Laser Melting Of Aluminium Matrix Nanocomposites*. Proceedings of XIII AIMAT National Congress 2016, J Appl Biomater Funct Mater, e-ISSN 2280-8000. DOI: 10.5301/jabfm.5000321
- 2016 Cabrini M., Lorenzi S., Pastore T., Pellegrini S., Ambrosio E.P., Calignano F., Manfredi D, Fino P. *Relationship Between Microstructure And Corrosion Resistance Of Alluminium Alloy Produced By Selective Laser Melting*. Abstracts from National Young Researchers' Forum on Materials Science and Technology, XIII AIMAT National Congress, National Biomaterial Congress - SIB, July 2016, Ischia, Italy, J Appl Biomater Funct Mater, Wichtig Publishing, e-ISSN 2280-8000. DOI: 10.5301/jabfm.5000321
- 2016 Lombardi M., Ambrosio E.P., Biamino S., Calignano F., Lorusso M., Manfredi D, Pavese M., Ugués D., Fino P. *Additive Manufacturing Activities at Politecnico di Torino*. Abstracts from National Young Researchers' Forum on Materials Science and Technology, XIII AIMAT National Congress, National Biomaterial Congress - SIB, July 2016, Ischia, Italy, J Appl Biomater Funct Mater, Wichtig Publishing, e-ISSN 2280-8000. DOI: 10.5301/jabfm.5000321
- 2016 Marchese G., Lorusso M., Ambrosio E.P., Manfredi D, Ugués D., Biamino S. *Study of Inconel 625 alloy produced by Direct Metal Laser Sintering: characterization and heat treatments set-up*. Abstracts from National Young Researchers' Forum on Materials Science and Technology, XIII AIMAT National Congress, National Biomaterial Congress - SIB, July 2016, Ischia, Italy, J Appl Biomater Funct Mater, Wichtig Publishing, e-ISSN 2280-8000. DOI: 10.5301/jabfm.5000321
- 2014 L. Ventola, F. Calignano, D. Manfredi, E. Chiavazzo, P. Asinari. *Superfici micro-alettate per l'aumento dello scambio termico*. In III congresso nazionale del coordinamento della meccanica italiana, Napoli 30/06/2014, 2014, ISBN: 8890209623
- 2011 M. Pavese, D. Manfredi, S. Biamino, P. Fino, C. Badini. *Metal- and intermetallic-ceramic co-continuous composites by reactive metal penetration*. Atti dell'VIII Convegno nazionale sulla scienza e tecnologia dei materiali, Samperi Editore, Messina, 2011, ISBN 978-88-86038-99-7
- 2010 S. Biamino, D. Manfredi, E.P. Ambrosio, M. Pavese, P. Fino, C. Badini. *Multistrato in carburo di silicio prodotti mediante tape casting per applicazione come protezione termica di veicoli spaziali*. Atti del X Convegno Nazionale AIMAT, Edizioni Università della Calabria (ITA), Capo Vaticano (Italy), Sept 5-8 2010, ISBN 978-88-7458-114-6



- 2009 D. Manfredi, E.P. Ambrosio, M.Pavese, S. Biamino, P. Fino, C. Badini. *NiAl/Al<sub>2</sub>O<sub>3</sub> co-continuous composites obtained by double reactive metal penetration*. VII Convegno Nazionale sulla Scienza e Tecnologia dei Materiali, Green Park Resort - Tirrenia, Italy, 9-12 Giugno-2009, book of abstract
- 2008 M. Pavese, D. Manfredi, S. Biamino, P. Fino, C. Badini. *Microstruttura e proprietà di compositi co-continui intermetallico-ceramico ottenuti per infiltrazione reattiva*. 32° Convegno Nazionale AIM, 24-26 settembre 2008, Ferrara, ISBN 88-85298-67-2

Torino, 22 October 2020

Diego Giovanni Manfredi

A handwritten signature in black ink, reading "Diego Giovanni Manfredi". The signature is written in a cursive style with some capital letters.

I authorize the use of my personal data in compliance with Legislative Decree 196/03.