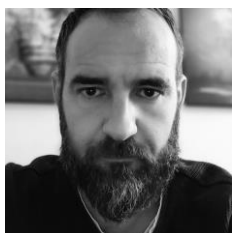


PERSONAL INFORMATION Pasquale GUGLIELMI



📍 10, Via dell'Ateneo Lucano, 85100, Potenza, Italy

☎ +39 349 7482402

✉ pasquale.guglielmi@unibas.it

🌐 <https://diing.unibas.it/site/home/dipartimento/personale/docente.html>

Male | 04/03/1980 | Italian

Enterprise	University	EPR
☐ Management Level	☐ Full professor	☐ Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
☐ Mid-Management Level	☐ Associate Professor	☐ Level III Researcher and Technologist
☐ Employee / worker level	☒ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

- From 2024 **Assistant Professor of Manufacturing Technologies and Systems (RTD-B)**
University of Basilicata
- Teaching and research on conventional and non-conventional manufacturing technologies with focus on warm and hot sheet metal forming of light metal alloys, on welding and on laser material processing
- From 2021 to 2024 **Research Associate of Manufacturing Technologies and Systems (RTD-A)**
Polytechnic University of Bari
- Teaching on material science and research on conventional and non-conventional manufacturing technologies with focus on warm and hot sheet metal forming of light metal alloys, on welding and on laser material processing

EDUCATION AND TRAINING

- From 2019 to 2021 Post-doctoral fellowship at the Polytechnic University of Bari.
Main topics:
- Experimental study of the mechanical and tribological properties of micro and nano-structured metallic surfaces.
- From 2016 to 2019 PhD in "Mechanical and Management Engineering" at the Polytechnic University of Bari discussing the thesis in "Manufacturing technology and systems" entitled: "Formability and process conditions of innovative magnesium alloys for sheet metal forming applications".
- From 2014 to 2016 Research Fellow at the Polytechnic University of Bari.
Main topics:
- Modeling of high-temperature rheological behavior in solid and semi-solid conditions of metallic materials for use in the Oil & Gas sector.
 - Study of the thermo-mechanical behavior of light alloys for applications in sheet metal stamping.
- From 2012 to 2014 Master of Advanced Training "SMATI-F" within the project "Development of Advanced Materials and Innovative Technologies for Turbomachinery for Use in Extreme Conditions" (SMATI), during which tutoring activities and on-the-job training were conducted with several project partners (ENEA, Nuovo Pignone, Enginsoft, Politecnico di Bari).
- From 2007 to 2012 Master Degree in "Mechanical and Management Engineering" at the Polytechnic University of Bari

RESEARCH

- Scientific impact Author of about 80 scientific publications in international and national journals and in proceedings of national and international conferences.
Scopus Author ID: 55754574100
ORCID website: <https://orcid.org/0000-0003-4176-0770>

Main publications
in the last 5 years

- Mi Y., Sikström F., Angelastri L., **Guglielmi P.**, Palumbo G., Ancona A. "Improving laser directed energy deposition with wire feed-stock through beam shaping with a deformable mirror", (2025), 185, art. no. 108716 - 10.1016/j.optlaseng.2024.108716.
- Yaghoubi S., Piccininni A., Seidi M., **Guglielmi P.**, "Multi-criteria optimization of the warm hydroforming process of an aluminum component based on the adaptive neuro-fuzzy inference system", (2024), 132, pp. 75 – 92 - 10.1016/j.jmapro.2024.10.075
- Iacovelli V., Piccininni A., **Guglielmi P.**, Palumbo G., "Accurate tuning by inverse methodology of the numerical model for efficiently simulating the high pressure die casting process", (2024), 235, art. no. 126188 - 10.1016/j.jheatmasstransfer.2024.126188
- **Guglielmi P.** (Corresponding), Palumbo G., "Production of porous titanium structures by combining hot isostatic pressing and solid-state foaming", (2024), 52, pp. 58 – 72 - 10.1016/j.cirpj.2024.05.019
- **Guglielmi P.** (Corresponding), Davoodi F., Palumbo G., Carbone G., "Tribological behaviour of microindented 100Cr6 steel surfaces in dry contact conditions", (2024), 133 (5-6), pp. 2381 – 2400 - 10.1007/s00170-024-13868-2
- Okur O., Davut K., Palumbo G., Nalcaci B., **Guglielmi P.**, Yalcin M.A., Calin R., Erdogan M., "Chemical Composition Optimization and Isothermal Transformation of δ -Transformation-Induced Plasticity Steel for the Third-Generation Advanced High-Strength Steel Grade", (2024) - DOI: 10.1002/srin.202400648
- Cusanno A., **Guglielmi P.** (Corresponding), Sorgente D., Palumbo G., "Numerical/experimental investigation of the effect of the laser treatment on the thickness distribution of a magnesium superplastically formed part (2024) - DOI: 10.1007/s40436-024-00497-x
- Mi Y., **Guglielmi P.** (Corresponding), Nilsen M., Sikström F., Palumbo G., Ancona A., "Beam shaping with a deformable mirror for gap bridging in autogenous laser butt welding", (2023), 169, art. no. 107724 - 10.1016/j.optlaseng.2023.107724
- Parau A.C., Cotrut C.M., **Guglielmi P.**, Cusanno A., Palumbo G., Dinu M., Serratore G., Ambrogio G., Vranceanu D.M., Vladescu A., "Deposition temperature effect on sputtered hydroxyapatite coatings prepared on AZ31B alloy substrate", (2022), 48 (8), pp. 10486 – 10497 - 10.1016/j.ceramint.2021.12.258
- Palumbo G., Ambrogio G., Crovace A., Piccininni A., Cusanno A., **Guglielmi P.**, De Napoli L., Serratore G., "A Structured Approach for the Design and Manufacturing of Titanium Cranial Prostheses via Sheet Metal Forming", (2022), 12 (2), art. no. 293 - 10.3390/met12020293
- Majidi O., Sorgente D., **Guglielmi P.**, Palumbo G., "A bulge-test based viscoplastic model for superplastic deformation behaviour of a magnesium alloy", (2021), 35, pp. 778 – 786 - 10.1016/j.cirpj.2021.09.005
- **Guglielmi P.**, Cusanno A., Bagudanch I., Centeno G., Ferrer I., Garcia-Romeu M.L., Palumbo G., "Experimental and numerical analysis of innovative processes for producing a resorbable cheekbone prosthesis", (2021), 70, pp. 1 – 14 - 10.1016/j.jmapro.2021.07.060
- Lattanzi A., Piccininni A., **Guglielmi P.**, Rossi M., Palumbo G., "A fast methodology for the accurate characterization and simulation of laser heat treated blanks", (2021), 192, art. no. 106134 - 10.1016/j.jmecs.2020.106134
- Palumbo G., **Guglielmi P.** (Corresponding), Piccininni A., Ferrer I., Garcia-Romeu M.L., "Manufacturing of a hemispherical component combining incremental forming and superplastic forming", (2020), 31, pp. 178 – 188 - 10.1016/j.cirpj.2020.04.006
- Guglielmi P., Sorgente D., Lombardi A., Palumbo G., "A new experimental approach for modelling the constitutive behaviour of sheet metals at elevated temperature through interrupted bulge tests", (2020), 184, art. no. 105839 - 10.1016/j.jmecs.2020.105839
- Palumbo G., Piccininni A., Guglielmi P., "Prediction of the residual state of stress in a superduplex stainless steel produced by sand casting (using a coupled thermo-mechanical approach)", (2020), 107 (7-8), pp. 3011 – 3022 - 10.1007/s00170-020-05213-0

Main research
projects

- **Principal Investigator** starting from December 2024 of the Research Contract signed by the University of Basilicata and the private company Fontana Group within the framework of the project "TOWARDS ZERO WASTE IN ALUMINIUM BODY IN WHITE MANUFACTURING (ToZero)", subject to the intervention of the Fund for Sustainable Growth in favour of research and development projects - Ministerial Decree of 31 December 2021 First Call - Agreements for innovation within specific fields of intervention attributable to the second pillar of the "Horizon Europe" programme (position no. 98 Prog. No. F/310098/01-04/X56). Cost of the part of interest for the project: € 80 000
- **Principal Investigator** of the research contract with Master Italy within the framework of "Improvement of Quality Standards of Aluminum and Zamak Alloy Die-Cast Products through Numerical/Experimental Approaches" - Year 2024 - Cost of the part of interest for the project: € 30 000
- Member of the research group in several national and international research projects

Other

Research collaborator at the Institute of Photonics and Nanotechnologies (IFN), part of the National Research Council (CNR), in the field of electron microscopy since 2018.
Member of the "Associazione Italiana delle Tecnologie Manifatturiere- AITeM" since 2017.
Member of The European Scientific Association for Material Forming - ESAFORM since 2017.