

# Europass Curriculum Vitae

### Personal information

First name(s) / Surname(s)

Address(es) Telephone(s) E-mail

Nationality

Date of birth

Gender

# Work experience

Main activities and responsibilities

Name and address of employer

Type of business or sector

# Nicola Masini

- 1993-94: Grant at CNR-IISF
- 1995-2000: Researcher on contract at CNR-IISF
- 2001-2003: Researcher at CNR-IBAM (Istituto di Scienze del Patrimonio Culturale / Institute of Architectural and Archaeological Heritage).
- 2002-2012: Professor of Architectural Restoration in the Faculty of Engineering of the University of Basilicata Seat of Potenza
- Since 2003: Senior Researcher at CNR-IBAM.
- 2005-2015: Manager of a CNR Research Commitment: "Integrated diagnostic Methodologies for preservation of the architectural and archaeological heritage in the Mediterranean basin" (IBAM, seats in Lecce and Potenza)
- Since 2007: Director of CNR International Mission for Archaeogeophysics and Heritage Conservation in Peru and Bolivia (ITACA)
- 2002-2012: Professor of Science for Conservation and Restoration of Architectural Heritage in the Faculty of Engineering of the University of Basilicata Seat of Potenza
- Since 2011, November: Responsible of CNR-IBAM, Seat of Potenza
- Since 2012- Professor of Architectural Restoration in the School of Architecture of the University of Basilicata - Seat of Matera
- 2014: Visiting Professor at the Universita Politecnica of Valencia (Spain).
- 2015: Visiting Professor at Henan Academy of Sciences in Zheng Zhou (Cina)
- Since 2015: Member of the International Doctorate College Cities and Landscapes: Architecture, Archaeology, Cultural Heritage, History and Resources University of Basilicata, School of Architecture Matera
- 2016: Visiting Professor at the Universitat de les Illes Balears Palma del Mallorca (Spain)
- 2016-17: Visiting Professor of Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing, China
- 2016: Member of the Regional Observatory of Cultural Heritage of Basilicata
- 2018: Deputy Director of Creative Cultural Industry Cluster "Basilicata Creativa"
- Since 2019, October: Responsible of CNR-ISPC, Seat of Potenza
- Since 2020, March 1: Research Director at CNR-ISPC

Dates

Occupation or position held

- 1993-94: Grant at CNR-IISF
- 1995-2000: Researcher on contract at CNR-IISF
- 2001-2003: Researcher at CNR-IBAM (Istituto di Scienze del Patrimonio Culturale / Institute of Architectural and Archaeological Heritage).
- 2002-2012: Professor of Architectural Restoration in the Faculty of Engineering of the University of Basilicata - Seat of Potenza
- Since 2003: Senior Researcher at CNR-IBAM.
- 2005-2015: Manager of a CNR Research Commitment: "Integrated diagnostic Methodologies for preservation of the architectural and archaeological heritage in the Mediterranean basin" (IBAM, seats in Lecce and Potenza)
- Since 2007: Director of CNR International Mission for Archaeogeophysics and Heritage Conservation in Peru and Bolivia (ITACA)
- 2002-2012: Professor of Science for Conservation and Restoration of Architectural Heritage in the Faculty of Engineering of the University of Basilicata Seat of Potenza
- Since 2011, November: Responsible of CNR-IBAM, Seat of Potenza
- Since 2012- Professor of Architectural Restoration in the School of Architecture of the University of Basilicata Seat of Matera
- 2014: Visiting Professor at the Universita Politecnica of Valencia (Spain).
- 2015: Visiting Professor at Henan Academy of Sciences in Zheng Zhou (Cina)
- Since 2015: Member of the International Doctorate College *Cities and Landscapes: Architecture, Archaeology, Cultural Heritage, History and Resources* University of Basilicata, School of Architecture Matera
- 2016: Visiting Professor at the Universitat de les Illes Balears Palma del Mallorca (Spain)
- 2016-17: Visiting Professor of Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences, Beijing, China
- 2016: Member of the Regional Observatory of Cultural Heritage of Basilicata
- 2018: Deputy Director of Creative Cultural Industry Cluster "Basilicata Creativa
- Since 2019, October: Responsible of CNR-ISPC, Seat of Potenza
- Since 2020, March 1: Research Director at CNR-ISPC

# **Education and training**

tes | 1990

Title of qualification awarded

Name and type of organisation providing education and training

Building Engineering
University of Basiliocata

# Personal skills and competences

Mother tongue(s)

**iTALIAN** 

Other language(s)
Self-assessment
European level (\*)

English Spanish

Understanding				Speaking				Writing
Listening		Reading		Spoken interaction		Spoken production		
C2		C2		C1		C1		C1
C2		C2		C2		C2		C2

<sup>(\*)</sup> Common European Framework of Reference for Languages

# Organisational skills and competences

Replace this text by a description of these competences and indicate where they were acquired. (Remove if not relevant, see instructions)

# Technical skills and competences

My dominant scientific interest, throughout my career, has been the development and application of new methodologies and technologies for the conservation of Cultural Heritage and the archaeological research. I have pursued this major interest through the following **research lines** 

- 1) Archeogeophysics, remote sensing and spatial analysis for the knowledge and enhancement of archaeological heritage and ancient landscapes.
- 2) Methodologies for the knowledge, conservation of the built historical heritage and monuments Line 1) is aimed at i) the identification and spatial characterization of proxy indicators and patterns referable to buried archaeological sites through the integrated use of aerial and satellite images, ii) the creation of predictive models and maps, iii) the study of human presence dynamics in relation to the environment setting and changes

**Line 2)** is focused on the following topics:

- a) Integrated and fusion of diagnostic investigation methodologies based on the use of non-invesive in situ tests and geophysical techniques (IRT, GPR, sonic/ultrasonic/seismic tests),) for the disgnosis of the state of conservation and restoration of of historical buildings and monuments.
- b) Study of construction techniques for the restoration and structural rehabilitation of monuments;
- c) Study of historical building techniques and seismic damage scenarios.

# **Additional information**

Include here any other information that may be relevant, for example contact persons, references, etc. (Remove heading if not relevant, see instructions)

#### Annexes

#### **RESEARCH ACTIVITY**

**Research projects**: Scientific responsible and project manager of n. 26 national and international research projects and investigation campaigns (2004-2017), among which n.3 H2020 and n.2 Interreg, n.1 ERDF

**Publications**: He authored and co-authored 394 publications, including 105 papers on international journals, 15 Books (authored or edited), one patent, 61 International book chapters, 17 special issues of international journals, 65 papers for international conference proceedings, 2 encyclopedic entries

**Conferences**: He has been general chair of international conferences (EARSEL Symposium 2013, YOCOCU 2018), several workshops (EARSEL Workshop of Remote Sensing for Cultural heritage: Rome 2008; Matera 2013; workshops for ICCSA conference: Santander 2011; Salvador de Bahia 2012; Ho Chi Minh 2013), convener of several scientific sessions of conferences (EGU 2009-2016; SPIE 2007-09; MetroArcheo 2020), and member of scientific committees of international conferences and workshops (GPR 2010; EARSEL 2008, 2013; ICCSA 2011-2017; RSCY 2014-20; YOCOCU 2016, 2018; REUSO 2019)

### ❖ Editor activity:

- Editor in Chief and co-founder of Heritage (http://www.mdpi.com/journal/heritage/editors)
- Associate Editor of Geoscientific Instrumentation. Methods and Data System
- Component of the Advisory Board of Journal of Archaeological Method and Theory I International Journal of Architectural Heritage
- Member of the Editorial Board of the following journals: Remote Sensing / Journal of Geophysics and Engineering / Sustainability

He is/has been **Guest Editor** of special issues of international journals: *Journal of Cultural Heritage* (2009, vol. 10S), *Journal of Geophysics and Engineering* (2010, vol. 7; 2011, vol. 8; 2012, vol. 9), *Near Surface Geophysics* (2010, vol.8(5)), *Advances in Geosciences* (2010, vol. 24), *Journal of Archaeological Science* (2011, vol. 38), *International Journal of Geophysics* (2011), *Archaeological Prospection* (2013, vol. 20), *International Journal of Applied Earth Observation and Geoinformation* (2014, vol. 26), Remote Sensing (2015), Heritage (2018-19), Heritage (2019), Sustainability (2019)

2006-07: Scientific responsible of ByHeriNet (*Byzantine Heritage Network: Rehabilitation, highlighting and management in the Eastern Mediterranean Basin*) Project [Interreg III B – Archimed]

2007: Co-chairman of the EARSeL (European Association Remote Sensing Laboratories) Special Interest Group (SIG)- on "Remote Sensing for Archaeology, Natural and Cultural Heritage".

2007-08: Scientific responsible for CNR-IBAM of Project PALAIS (*Patrimoine Architectural Locale t Aménagement Innovante et Stratégique*) [Interreg III C – Zone Sud]

Since 2011 He has been **Science Officer** of "Cultural and Archaeological Heritage" within the division Geoinstrumentation and Geoscience of EGU

Since 2010 Membership: EGU (European Geosciences Union), EARSEL

From 2013 to 2015 he has been Scientific responsible of Great Relevance Project Italy-China "Smart management of cultural heritage sites in Italy and China: Earth Observation and pilot projects" within the framework of Executive Programme for Scientific and Technological Cooperation between Italy and China (Chinese partner - Chinese Academy of Sciences – Center for Earth Observation and Digital Earth)

2015-16 - Scientific responsible of Bilateral project CNR/IBAM - Università di Cartagena (Colombia) "Tecnologie e strumenti di diagnostica e conservazione degli insediamenti fortificati di Cartagena de Indias (COL) e Acaia (ITA) "funded by CNR-ACAC Agreement

2016-2018: Scientific responsible of Project ATHENA. "Remote Sensing Science Center for Cultural Heritage" (H2020-TWINN-2015), Grant agreement ID: 691936

2017-2020: Scientific responsible of Project GeoMOP " Modern Geospatial Practices for Ancient Movement Praxis" (H2020-MSCA-IF-2016), Grant agreement ID: 747493

2020-on going: Scientific responsible of Project HERITAGE WITHIN " (Programme CROSS-SECT - Cross Sectoral Strand) - Grant agreement ID: 614719

SELECTED LIST PF PUBLICATIONS - LAST FIVE YEARS di Pubblicazioni (2016-21)

#### **PAPERS**

- 1. Abate, N.; Frisetti, A.; Marazzi, F.; Masini, N.; Lasaponara, R. Multitemporal–Multispectral UAS Surveys for Archaeological Research: The Case Study of San Vincenzo Al Volturno (Molise, Italy). Remote Sens. 2021, 13, 2719. https://doi.org/10.3390/rs1314271910.3390/rs13142719
- 2. Masini, N. and Lasaponara, R., 2021. Remote and Close Range Sensing for the Automatic Identification and Characterization of Archaeological Looting. The Case of Peru. Journal of Computer Applications in Archaeology, 4(1), pp.126–144. DOI: http://doi.org/10.5334/jcaa.73
- 3. Yan, L.; Lu, P.; Chen, P.; Danese, M.; Li, X.; Masini, N.; Wang, X.; Guo, L.; Zhao, D. Towards an Operative Predictive Model for the Songshan Area during the Yangshao Period. ISPRS Int. J. Geo-Inf. 2021, 10, 217. https://doi.org/10.3390/ijgi10040217
- 4. Lasaponara, R.; Abate, N.; Masini, N. (2021) On the Use of Google Earth Engine and Sentinel Data to Detect "Lost" Sections of Ancient Roads. The Case of Via Appia. IEEE Geoscience and Remote Sensing Letters, doi: 10.1109/LGRS.2021.3054168
- 5. Masini, N., Lasaponara, R. (2020) On the Reuse of Multiscale LiDAR Data to Investigate the Resilience in the Late Medieval Time: the Case Study of Basilicata in South of Italy. J Archaeol Method Theory. https://doi.org/10.1007/s10816-020-09495-2
- 6. Elfadaly, A.; Abate, N.; Masini, N.; Lasaponara, R. SAR Sentinel 1 Imaging and Detection of Palaeo-Landscape Features in the Mediterranean Area. Remote Sens. 2020, 12, 2611, doi: 10.3390/rs12162611
- 7. M. Sileo, F. T. Gizzi, A. Donvito, R. Lasaponara, F. Fiore & N. Masini (2020) Multi-Scale Monitoring of Rupestrian Heritage: Methodological Approach and Application to a Case Study, International Journal of Architectural Heritage, DOI: 10.1080/15583058.2020.1799261
- 8. Masini, N.; Leucci, G.; Vera, D.; Sileo, M.; Pecci, A.; Garcia, S.; López, R.; Holguín, H.; Lasaponara, R. Towards Urban Archaeo-Geophysics in Peru. The Case Study of Plaza de Armas in Cusco. Sensors 2020, 20, 2869, DOI: 10.1080/15583058.2020.1799261
- 9. Abate, N.; Elfadaly, A.; Masini, N.; Lasaponara, R. Multitemporal 2016-2018 Sentinel-2 Data Enhancement for Landscape Archaeology: The Case Study of the Foggia Province, Southern Italy. Remote Sens. 2020, 12, 1309.
- 10. N. Masini, R. Lasaponara (2020). Satellite and close range analysis for the surveillance and knowledge improvement of the Nasca geoglyphs. Remote sensing of environment. Volume 236, January 2020, 111447
- 11. Kalayci, T.; Lasaponara, R.; Wainwright, J.; Masini, N. (2019) Multispectral Contrast of Archaeological Features: A Quantitative Evaluation. Remote Sens., 11, 913
- 12. Masini N., Gizzi F.T., Biscione M., Fundone V., Sedile M., Sileo M., Pecci A., Lacovara B., Lasaponara R. (2018). Medieval archaeology under the canopy with LiDAR. The (re)discovery of a medieval fortified settlement in Southern Italy. Remote Sens. 2018, 10, 1598; doi:10.3390/rs10101598
- 13. Masini N., Capozzoli L., Romano G., Sieczkowska D., Sileo M., Bastante J., Astete Victoria F., Ziolkowski M., Lasaponara R. (2018). Archaeogeophysical based approach for Inca archaeology: overview and one operational application. Survey in Geophysics, doi: 10.1007/s10712-018-9502-2
- 14. Lasaponara R., Masini N. (2018). Space-Based Identification of Archaeological Illegal Excavations and a New Automatic Method for Looting Feature Extraction in Desert Areas. Surv Geophys (2018). https://doi.org/10.1007/s10712-018-9480-4
- 15. Lasaponara R., Leucci G., Masini N., Persico R., Scardozzi G. (2016) Towards an operative use of remote sensing for exploring the past using satellite data: The case study of Hierapolis (Turkey). Remote Sensing of Environment 174, 148-164

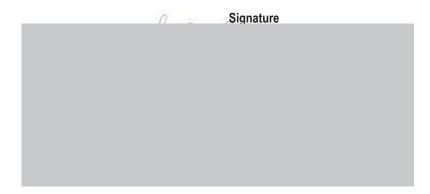
#### **BOOKS**

Masini N., Soldovieri F. (Eds) (2017). Sensing the Past. From From artifact to historical site. Series: Geotechnologies and the Environment, Vol. 16. Springer International Publishing, ISBN: 978-3-319-50516-9, doi: 10.1007/978-3-319-50518-3

Lasaponara R., Masini N., Orefici G. (Eds). The Ancient Nasca World New Insights from Science

"According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV"

Date:14 \_\_/02\_\_/2022





#### PERSONAL INFORMATION

Name

Address

Telephone

E-mail

Nationality

Date of Birth

Gender

#### **WORK EXPERIENCE**

- Dates (from November 2015to today)
- · Name ad address of the employer
  - Type of business or sector
- · Main activities and responsibilities
- Dates (from October 2012- to October 2015)
  - Name ad address of the employer
    - Type of business or sector
  - · Main activities and responsibilities
- Dates (from February 2007- to October
  - · Name ad address of the employer
    - Type of business or sector
  - Main activities and responsibilities

# **EDUCATION AND TRAINING**

- Dates (from November 2008- to October 2011)
- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered
  - Title of qualification awarded
    - Dates (from 2004 to 2006)

## SILEO, MARIA

#### Technologist level III.

ISPC CNR headquarters of Potenza (Institute of Cultural Heritage Sciences, National Research Council) C/da Santa Loja – I-85050 - Tito Scalo (Potenza), Italy

applied research and technology development

Technological support activities for research activity with particular reference to the use and development of technologies for monitoring the material degradation of cultural heritage and the application of qeophysical and diagnostic investigation techniques

#### Research fellow

CNR – IBAM, Istituto per i Beni Archeologici e Monumentali - Potenza c/o Area di Ricerca di Tito Scalo - Contrada S. Loja 85050 Potenza (PZ);

Research

Research activity within the ERDF BASILICATA 2007-2013 operational program within the research project PRO CULT - Advanced Methodological approaches and technologies for Protection and Security of Cultural Heritage for the following theme: "Innovative techniques for monitoring material degradation of the architectural and monumental heritage ".

#### Research fellow

CNR – IBAM, Istituto per i Beni Archeologici e Monumentali - Potenza c/o Area di Ricerca di Tito Scalo - Contrada S. Loia 85050 Potenza (PZ):

Research

Research activity on the topic "Minero-petrographic and physical characterization of stone materials of cultural heritage, study of the problems of alteration and conservation, methodologies for identifying ancient loan quarries".

#### Research doctorate P.h.D

Doctoral School in Earth Sciences cycle XXIV, University of Basilicata

Scientific-Disciplinary Sector "Geo / 09 - Mining georesources and mineralogical-petrographic applications for the environment and cultural heritage". Research project on "Identification and geological, chemical-mineralogical and petrophysical characterization of soft calcarenites of Puglia and Basilicata in relation to the problems of provenance and conservation of Cultural Heritage"

PhD in Earth Sciences, 14/06/2012.

**Specialized Degree in "Geo-environmental Prospecting and Monitoring"** (Class of specialist degrees in Geological Sciences 86 / S of Ministerial Decree 28/11/2000 pursuant to Ministerial Decree 509/99) at the University of Basilicata, Faculty of Sciences MM.FF.NN., with final grade of 110 / 110 and honors. University of Basilicata From the academic year 2003-2004 to the academic year 2005-2006 University of Basilicata, Faculty of Sciences MM.FF.NN. Specialized Degree awarded on September 28, 2006

 Name and type of organisation providing education and training University of Basilicata Faculty of Sciences MM.FF.NN

Principal subjects/occupational skills covered

Thesis subject "Evaluation of Geomorphological Risks"; Thesis title "Geological and geomorphological aspects of the terraced areas between the Agri river and the Cavone torrent"; Speaker: Bentivenga Mario

• Dates (from 1999 to 2004)

**Degree in Geological Sciences**, class of degrees n.16 of Ministerial Decree 4 August, pursuant to Ministerial Decree 509/99), University of Basilicata, Faculty of Sciences MM.FF.NN., with final grade of 102/110, conferred on March 30, 2004

 Name and type of organisation providing education and training University of Basilicata Faculty of Sciences MM.FF.NN

#### PERSONAL SKILLS AND COMPETENCES

2017 Winner in 57th place of the Public Competition Class of Competition: EE00 - PRIMARY SCHOOL

RANKING MINISTRY OF EDUCATION, UNIVERSITY AND RESEARCH, Regional School Office: Basilicata, inclusion in the ranking of merit at 57th place. (Waiver) D.D.G. 105 of 23 February 2016-Competition for the recruitment of teaching staff on common places in nursery and primary schools

2017

Winner in 14th place in the Public Competition. Class of Competition: AA00 - SCHOOL OF INFANCY, MINISTRY OF EDUCATION, UNIVERSITY AND RESEARCH, Regional School Office: Basilicata, inclusion in the ranking of merit in 14th place. DDG 105 of 23 February 2016-Competition for the recruitment of teaching staff on common places in nursery and primary schools

2010

4th place in the ranking for the "Public competition based on qualifications and exams for the recruitment with permanent contract of eleven personnel with the profile of technical research collaborator - VI professional level, Position IV - Reference code 95 / 1 - n. 1 place "(CNR - National Research Council) .. Institute for the Study of Nanostructured Materials (ISMN) - Rome.

2007

Qualification to practice as a Geologist section A. University of Basilicata on 7/02/2007

#### NATIVE LANGUAGE

ITALIANA

OTHER LANGUAGES

**ENGLISH** 

• READING ABILITY, WRITING SKILLS, ORAL EXPRESSION SKILLS

Good

ORGANISATIONAL SKILLS
AND COMPETENCES

Coordination and administration of people, projects and budgets; at work, in voluntary work (for example culture and sports) and at home, etc.

Excellent interpersonal skills to work in a team. Since 2007 my working group has developed and carried out various research projects in the field of knowledge, conservation and enhancement of archaeological and monumental heritage, dealing with both the experimental part of characterization, prospecting and monitoring on site and in the laboratory as well as that of the elaboration and publication of the obtained data.

TECHNICAL SKILLS AND COMPETENCES

With computers, specific kinds of equipment, machinery, etc.

Support to research through the use and development of technologies and techniques for the knowledge, conservation and enhancement of cultural heritage; the topics in particular laboratory techniques for the mineralogical-petrographic and physical characterization of stone materials of cultural heritage and the study of the problems of alteration and conservation; Development of technologies for the monitoring of the material degradation of the heritage through the use of hardware and software connected to sensors for multi-parameter detection in situ, from ground and satellite analysis of passive acoustic emission for the protection of historic and monumental buildings; Responsibility and coordination of research and training activities relating to diagnostics and geophysics applied to archaeology and cultural heritage in Italy and abroad. Ability to coordinate, design, execute and process data from geophysical and diagnostic investigations on site for the study and analysis of the conservation status of archaeological and monumental assets

DRIVING LICENCE(S)

Driving license category B, Issued on February 25, 1999 by the M.C.T.C of Potenza

**ADDITIONAL INFORMATION** 

Google Scholar H-Index 13 Scopus H-Index 11

https://www.researchgate.net/profile/Maria-Sileo

#### Principal scientific publications

- M. Sileo, F.T. Gizzi, A. Donvito, R. Lasaponara, F. Fiore & N. Masini 2020 Multi-Scale Monitoring of Rupestrian Heritage: Methodological Approach and Application to a Case Study. International Journal of Architectural Heritage Received 06 Feb 2020, Accepted 07 Jul 2020, Published online: 11 Aug 2020.
- 2. Nicola Masini; Giovanni Leucci; David Vera; Maria Sileo; Antonio Pecci; Sayri Garcia; Ronald López; Henry Holguín; Rosa Lasaponara 2020 Towards Urban Archaeo-Geophysics in Peru. The Case Study of Plaza de Armas in Cusco. Sensors 2020, Volume 20, Issue 10, 2869
- 3. F.T. Gizzi, M. Biscione, M. Danese, A. Maggio, A. Pecci, M. Sileo, M.R. Potenza, N. Masini, A. Ruggeri, A. Sileo, F. Mercurio and School-Work Alternation (SWA) Working Group (WG) 2019 Students Meet Cultural Heritage: An Experience within the Framework of the Italian School-Work Alternation (SWA)—from Outcomes to Outlooks. Heritage2019, 2, 1986-2016; doi:10.3390/heritage2030120

Pagina 2 - Curriculum vitae of Maria SILEO

- Bonomo A.E., Minervino A.A., Sileo M., Prosser G. & Rizzo G. 2019 EVALUATION OF SOFT LIMESTONE DEGRADATION IN THE SASSI UNESCO SITE (MATERA, SOUTHERN ITALY): LOSS OF MATERIAL MEASUREMENT AND CLASSIFICATION. Journal of Cultural Heritage Journal of Cultural Heritage Volume 42, March—April 2020, Pages 191-201. Impact Factor: 1.706
- 5. F. T. Gizzi1 & M. Bentivenga & R. Lasaponara & M. Danese & M. R. Potenza & M. Sileo & N. Masini 2019 Natural Hazards, Human Factors, and "Ghost Towns": a Multi-Level 6 Approach Geoheritage https://doi.org/10.1007/s12371-019-00377-y 31pp Geoheritage volume11,pages 1533–1565(2019)
- Masini N., Capozzoli L.,Romano G., Sieczkowska D., Sileo M., Bastante J., Victoria .F.A., Ziolkowski M., Lasaponara R., (2018) -Archaeogeophysical-Based Approach for Inca Archaeology: Overview and one operational application. Surveys in Geophysics (2018) 39:1239–1262, https://doi.org/10.1007/s10712-018-9502-2. Impact Factor 3.761
- 7. Tang P., Chen F., Jiang A., Zhou W., Wang H., Leucci G., De Giorgi L., Sileo M., Luo R., Lasaponara R., Masini N. (2018) Multi-frequency Electromagnetic Induction Survey for Archaeological Prospection: Approach and Results in Han Hangu Pass and Xishan Yang in China. Surv Geophys (2018) 39:1285–1302, https://doi.org/10.1007/s10712-018-9471-5. Impact Factor 3.761
- 8. Masini N., Gizzi F.T., Biscione M., Fundone V., Sedile M., Sileo M., Pecci A., Lacovara B. and Lasaponara R., 2018 Medieval Archaeology Under the Canopy with LiDAR. The (Re)Discovery of a Medieval Fortified Settlement in Southern Italy. Remote Sens. 2018, 10, 1598; doi:10.3390/rs10101598. Impact Factor: 3.406
- 9. Danese M., Sileo M., Masini N. 2018 Geophysical Methods and Spatial Information for the Analysis of Decaying Frescoes. Survey in Geophysics, 18pp., https://doi.org/10.1007/s10712-018-9484-0. Impact Factor 3.761
- 10. Sileo M., Gizzi F.T., Masini N. (2017)- Low cost monitoring approach for the conservation of frescoes: the crypt of St. Francesco d'Assisi in Irsina (Southern Italy). Journal of Cultural Heritage 23 (2017) 89–99 Impact Factor: 1.533
- 11. Graves K., Carson D., Catapano I., Chiari G., Gennarelli G., Heginbotham A., Masini N., Piqué F., Sileo M., Rainer L., Portable in practice: investigations using portable instrumentation for materials analysis and mapping of decorated architectural surfaces in the tablinum of the House of the Bicentenary at Herculaneum. MRS Advances, 2(33-34), 1831-1848, 2017, https://doi.org/10.1557/adv.2017.317
- 12. Lasaponara R., Masini N., Pecci A., Perciante F., Pozzi Escot D., Rizzo E., Scavone M., Sileo M. (2017) Qualitative evaluation of COSMO SkyMed in the detection of earthen archaeological remains: the case of Pachamacac (Peru). Journal Of Cultural Heritage. Journal of Cultural Heritage 23 (2017) 55–62 \_ Impact Factor: 1.533
- 13. Masini N., Capozzoli L., Chen P., Chen F., Romano G., Lu P., Tang P., Sileo M., Ge Q. and Lasaponara R., 2017 Towards an Operational Use of Geophysics for Archaeology in Henan (China): Methodological Approach and Results in Kaifeng. Remote Sens. 2017, 9, 809; doi:10.3390/rs9080809 Impact Factor: 3.244 (2016).
- 14. Matera L., Persico R., Geraldi E., Sileo M. and Piro S. (2016) GPR and IRT tests in two historical buildings in Gravina in Puglia. Geosci. Instrum. Method. Data Syst., 5, 541-550, 2016 https://doi.org/10.5194/gi-5-541-2016 . Impact factor: 1.023; IF 5-year1.557.
- 15. Jiang A., Chen F., Masini N., Capozzoli L., Romano G., Sileo M., Yang R., Tang P., Chen P., Lasaponara R. and Liu G., 2017 Archeological crop marks identified from Cosmo-SkyMed time series: the case of Han-Wei capital city, Luoyang, China. International Journal of Digital Earth, 2016 http://dx.doi.org/10.1080/17538947.2016.1254686
- 16. Liberatore D., Masini N., Sorrentino L., Racina V., Sileo M., AlShawa O., Frezza L. (2016) Static penetration test for historical masonry mortar. Construction & Building Materials 122. Impact Factor: 2.421 doi:10.1016/j.conbuildmat.2016.07.097
- 17. Gizzi F.T., Sileo M., Biscione M., Danese M., Álvarez de Buergo M. (2016) The conservation state of the Sassi of Matera site (Southern Italy) and its correlation with the environmental conditions analysed through spatial analysis techniques. Journal of Cultural Heritage 17 (2016) 61–74, http://dx.doi.org/10.1016/j.culher.2015.05.002. Impact Factor: 1.533
- 18. Leucci G., Sileo M., De Giorgi L. (2016) High Frequency Sound Waves as Function of the Density and Water Content: Experimental studies on Calcarenitic Stones of Southern Apulia. International Journal of Engineering Research & Science Vol-2, Issue-1, page 49-61, January- 2016], 1-13. Impact Factor: 3.165
- 19. Vasanelli E., Colangiuli D., Calia A., Sileo M., Aiello A. (2015) Ultrasonic pulse velocity for the evaluation of physical and mechanical properties of a highly porous building limestone. Ultrasonics 60 (2015), 33-40. Impact Factor 1.954
- 20. Vasanelli E., Sileo M., Calia A., Aiello M.A. (2013) Non-destructive techniques to assess mechanical and physical properties of soft calcarenitic stones. Procedia Chemistry, Volume 8, 2013, Pages 35–44.DOI: 10.1016/j.proche.2013.03.006. ISSN: 1876-6196
- 21. Calia A., Lettieri M., Leucci G., Matera L., Persico R., Sileo M. (2013) The mosaic of the crypt of St. Nicholas in Bari (Italy): integrated GPR and laboratory diagnostic study. Journal of Archaeological Science 40 (2013) 4162-4169. DOI: 10.1016/j.jas.2013.06.005. Impact Factor 2.196
- 22. Calia A., Leucci G., Masini N., Matera L:, Persico R. and Sileo M. (2012) Integrated prospecting in the crypt of the Basilica of Saint Nicholas in Bari, Italy. Journal of Geophysics and Engineering, 9, 271-281.DOI:10.1088/1742-2132/9/3/271. Impact Factor 0.778
- 23. Bentivenga M., Coltorti M., Palladino G. & Sileo M. (2007) Terraced marine and fluvial deposits along the lower Agri River Valley (Lucanian Ionian coast-Southern Italy). Rend. Soc. Geol. It., 5 (2007), Nuova Serie, 58-59.
- 24. Geuguen E., Bentivenga M., Palladino G., Prosser G. & Sileo M. (2007) Tilting of terraced surfaces in the Taranto Gulf: consequences of Apennines front propagation?. Rend. Soc. Geol. It., 5 (2007), Nuova Serie, 151-152

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Date: 15/02/2022

## Signature



# Europass Curriculum Vitae

# Personal information

First name(s) / Surname(s)

Dario GIOIA

Address(es) Telephone(s)

Fax(es)

E-mail

Nationality

Date of birth

Gender

Work experience

Dates | 8 January 2016 - present

Occupation or position held Researcher – Geologist and Geomorphologist

Main activities and responsibilities

Research activity focused on geological and geomorphological topics dealing with evaluation of natural and anthropic hazard for the conservation of cultural and monumental heritage.

Main topics: Geomorphological analyses and mapping of landslides in tectonically-active landscape of

southern Italy, analysis of landslide processes, landslide mapping and geostatistical analysis, relationships between landslides and sediment yield. Application of landscape evolution model Geological/geomorphological Interpretation of GB-inSAR data for the reconstruction of spatial and temporal evolution of landslide processes, evaluation of natural and anthropic hazard in areas of high

cultural value.

Name and address of employer | CNR-ISPC (Consiglio Nazionale delle Ricerche, Istituto di Scienze del Patrimonio Culturale –) C/da

Santa Loja – I-85050 - Tito Scalo (Potenza), Italy

Type of business or sector | Research in the field of Earth Sciences, Geomorphology, Cultural Heritage Risks

Dates From July 2010 to July 2015

Occupation or position held Research fellow

Main activities and responsibilities Geomorphological analyses and mapping of landslides in tectonically-active landscape of southern Italy, analysis of landslide processes, landslide mapping and geostatistical analysis, relationships

between landslides and sediment yield.

Name and address of employer | C.N.R.-I.B.A.M., Italian National Research Council, Institute for Archaeological and Monumental

Heritage – C/da Santa Loja – I-85050 - Tito Scalo (Potenza), Italy

Type of business or sector Research

Research topics | Stratigraphy and sedimentology of fluvial deposits, Geomorphological analysis, GIS-aided mapping

and paleotopographic reconstruction.

Dates | July 2009 – May 2010

Occupation or position held Post-doctoral Grant

Main activities and responsibilities | Stratigraphical and sedimentological evolution of alluvial fan systems in southern Italy and their

interactions with eustatic and tectonic forcing

Name and address of employer | Department of Geology and Geophysics, University of "Aldo Moro", Bari, Italy

Page 1/5 - Curriculum vitae of Dario GIOIA For more information on Europass go to http://europass.cedefop.europa.eu © European Communities, 2003 20060628

Research topics

Stratigraphical analysis, Radiometric dating of continental deposits, Alluvial fan evolution, Geomorphometry, Geomorphological analysis, Field geological surveys and geological mapping

Dates

July 2005 - May 2009

Occupation or position held

PhD student

Main activities and responsibilities

Morphotectonic analysis and geomorphological evolution of a tectonic depression of the southern Apennines

Name and address of employer

Department of Geological Sciences, Basilicata University, Potenza, Italy

Research topics

Stratigraphical evolution, Basin evolution, Geomorphometry, Geomorphological analysis, GIS-aided paleotopographic reconstruction.

# **Education and training**

Dates

April 2017

Title of qualification awarded

Name and type of organisation
providing education and training

Qualification to the academic role of Associate Professor of Physical Geography and Geomorphology MIUR (Ministero dell'Istruzione, dell'Università e della Ricerca)

**Dates** 

March 2009

Title of qualification awarded

PhD - Geomorphology

Principal subjects/occupational skills covered

Title of the thesis: "Morphotectonics, estimation of uplift and erosion rates and palaeoclimate analysis of the Auletta basin, southern Italy". Geological survey and stratigraphic analysis of marine to continental deposits of the southern Italian foredeep. Main topics: Morpho-stratigraphical analysis of tectonic basins; Geomorphological analyses, Landscape evolution

Name and type of organisation providing education and training

Department of Geological Sciences, Basilicata University, Potenza, Italy

Dates

March 2005

Title of qualification awarded
Principal subjects/occupational skills
covered

Master Degree in Geological Sciences

Name and type of organisation providing education and training

Title of the thesis: "Morphotectonics of the Valico di Prestieri area"

Basilicata University, Potenza Italy.

# Teaching activity

Since 2005, he coordinated the research activity of many graduate and postgraduate students: tutor of the MS-degree courses of Geological Survey I and II at the Basilicata University; tutor of the cartographic and photogeological laboratory of the Department of Geological Sciences (Basilicata University, Potenza, Italy).

 Management and scientific coordination of national and international research projects Since 2014, he has been the scientific coordinator of several national projects dealing with geomorphology, geoarchaeology and cultural heritage. Specifically, he worked as scientific coordinator of the following projects: i) agreement between the IBAM-CNR and IMAA-CNR for research activities in the field of geomorphology and geoarchaeology from the ionian coastal sector of the Basilicata region (Southern Italy); ii) agreement between the IBAM-CNR and Battaglini High-School (Venosa, Potenza) for the dissemination of the results of the Protect-Cult and Pro-Cult projects. iii) agreement between the IBAM-CNR and several high-schools of the Basilicata region for the training project entitled "Strategies, tools and methods for the valorization and promotion of the landscape and cultural Heritage of the upper valley of the Bradano River.

Awards, prizes, honours and recognitions for scientific merits

Grant of the Italian Association of the Physics Geography and Geomorphology (AIGEO) for the attendance of the Conference of the International Association of Geomorphologist (IAG), Paris, 27-31 August 2013.

#### **Editorial activity**

Date 2022

Guest editor of the special issue "Advances in Quantitative Geomorphology: From DEM Analysis to Modeling of Surface Processes". Journal: Frontiers in Earth Sciences

Date 2021

Guest editor of the special issue "Spatial Analysis for Landscape Changes". Journal: Applied Sciences

Date 2021

Guest editor of the special issue "GIS-Supported DEM Analysis for Characterization of Short to Long Term Landscape Dynamics". Journal: ISPRS International Journal of Geo-Information.

Date | 2019

Guest editor of the special issue "Erosion modeling and sediment flux in closed drainage basins". Journal: Applied Sciences.

Date 2018

Guest editor of the special issue "Quantitative Geomorphology". Journal: Geosciences

Date 2011-2022

Referee of relevant international journals such as Scientific Reports, Earth Surface Processes and Landforms, Geomorphology, Journal of the Geological Society, International Journal of Earth Sciences, Climate, Remote Sensing, Journal of Maps, Geosciences, Geologica Carpathica, Marine and Petroleum Geology and Environmental Science and Pollution Research

Self-assessment

European level (\*)

English

Understanding				Speaking				Writing		
Listening		Reading		Spoken interaction		Spoken production				
	B2		B2		B2		B2		B2	

<sup>(\*)</sup> Common European Framework of Reference for Languages

# Computer skills and competences

Image editing softwares | Co

CorelDraw 13, Adobe Illustrator CS2.

Statistics :

Statistica 8, Oriana (analysis of orientation data),

GIS

Surfer 8.0, ArcGIS 9.3 e 10.1 [Spatial Analyst, 3D Analyst, Image Analyst], QGIS

#### Geological and geophysical softwares

Landscape evolution model: Caesar-Lisflood

Slope stability and landslide analysis: SINMAP, SSAP (Slope Stability Analysis Program), Scoop 3D Analysis of seismic data: Geopsy (processing of seismic analyses such as MASW and HVSR), Rayfract (Seismic refraction analysis)

# Additional information Bibliometric indexes

Scopus:

H-index=16 Citations=566

Google scholar:

H-index=18 Citations=4700

# Principal scientific publications

- 1. CORRADO, G., AIELLO, G., BARRA, D., DI LEO, P., GIOIA, D., ANTONIO, M.A., PARISI, R., SCHIATTARELLA, M. (2022) Late Quaternary evolution of the Metaponto coastal plain, southern Italy, inferred from geomorphological and borehole data. Quaternary International, in press. 10.1016/j.quaint.2022.01.008
- 2. GIOIA, D., DANESE, M., CORRADO, G., DI LEO, P., MINERVINO AMODIO, A., SCHIATTARELLA, M. (2021) Assessing the prediction accuracy of geomorphon-based automated landform classification: An example from the ionian coastal belt of southern italy. ISPRS International Journal of Geo-Information 10. DOI: 10.3390/ijqi10110725
- 3. Coratza, P., Bollati, I.M., Panizza, V., Brandolini, P., Castaldini, D., Cucchi, F., Deiana, G., Del Monte, M., Faccini, F., Finocchiaro, F., Gioia, D., Melis, R., Minopoli, C., Nesci, O., Paliaga, G., Pennetta, M., Perotti, L., Pica, A., Tognetto, F., Trocciola, A., Valentini, L., Giardino, M., Pelfini, M., (2021) Advances in geoheritage mapping: Application to iconic geomorphological examples from the italian landscape. Sustainability, 13. DOI: 10.3390/su132011538
- 4. GIOIA, D., MINERVINO AMODIO, A., MAGGIO, A., SABIA, C.A. (2021) Impact of land use changes on the erosion processes of a degraded rural landscape: An analysis based on high-resolution DEMs, historical images, and soil erosion models. Land 10. DOI: 10.3390/land10070673
- 5. CHIARELLA, D., GIOIA, D. (2021) A graphic method for depicting basin evolution and changes in the dominant hydrodynamic process from paleocurrent data. Geosphere 17, 1861-1868. DOI: 10.1130/GES02403.1
- 6. GIOIA D., BAVUSI M., DI LEO P., GIAMMATTEO T., SCHIATTARELLA, M. (2019) Geoarchaeology and geomorphology of the Metaponto area, ionian coastal belt, Italy. Journal of Maps, in press. doi: 10.1080/17445647.2019.1701575
- 7. Teofilo G., Gioia D., Spalluto L. (2019). Integrated geomorphological and geospatial analysis for mapping fluvial landforms in Murge basse karst of Apulia (Southern Italy). Geosciences (Switzerland), 9(10). doi: 10.3390/geosciences9100418
- 8. GIOIA D., LAZZARI M. (2019). Testing the Prediction Ability of LEM-Derived Sedimentary Budget in an Upland Catchment of the Southern Apennines, Italy: A Source to Sink Approach. Water, 11(5). doi: 10.3390/w11050911
- 9. GIOIA D., DEL LUNGO S., SANNAZZARO A., LAZZARI M. (2019). Geological and Geomorphological Controls on the Path of an Intermountain Roman Road: The Case of the Via Herculia, Southern Italy. Geosciences, 9(9), 398.
- 10. GIOIA D. (2018). Editorial for Quantitative Geomorphology Special Issue. Geosciences, 8(12), 475.
- 11. **GIOIA D.**, SCHIATTARELLA M., GIANO, S. (2018). Right-Angle Pattern of Minor Fluvial Networks from the Ionian Terraced Belt, Southern Italy: Passive Structural Control or Foreland Bending? Geosciences, 8(9), 331. doi:10.3390/geosciences8090331.
- 12. LAZZARI M., GIOIA D., ANZIDEI B. (2018). Landslide inventory of the Basilicata region (Southern Italy). Journal of Maps, 14(2), 348-356. doi: 10.1080/17445647.2018.1475309.
- 13. DI MAIO C., FORNARO G., GIOIA D., REALE D., SCHIATTARELLA M., VASSALLO R. (2018). In situ and satellite long-term monitoring of the Latronico landslide, Italy: displacement evolution, damage to buildings, and effectiveness of remedial works. Engineering Geology, 245, 218-235. doi: https://doi.org/10.1016/j.enggeo.2018.08.017.
- 14. DI LEO P, BAVUSI M, CORRADO G, DANESE M, GIAMMATTEO T, GIOIA D, SCHIATTARELLA M (2018). Ancient settlement dynamics and predictive archaeological models for the Metapontum coastal area in Basilicata, southern Italy: from geomorphological survey to spatial analysis. Journal of Coastal Conservation, 22 (5), 865-877. doi: 10.1007/s11852-017-0548-y.
- 15. Pennetta M, Corbelli V, Gattullo V, Nappi R, Brancato V M, Gioia D (2018). Beach vulnerability assessment of a protected area of the Northern Campania coast (Southern Italy). Journal of Coastal Conservation, 22(5), 1017-1029. doi: 10.1007/s11852-017-0572-y.
- 16. Schiattarella M, Giano SI, Gioia D (2017) Long-term geomorphological evolution of the axial zone of the Campania-Lucania Apennine, southern Italy: A review Geologica Carpathica 68:57-67 doi:10.1515/geoca-2017-0005.

- 17. Lazzari M, Gioia D (2017) UAV images and historical aerial-photos for geomorphological analysis and hillslope evolution of the Uggiano medieval archaeological site (Basilicata, southern Italy) Geomatics, Natural Hazards and Risk:1-16 doi:10.1080/19475705.2017.1310762.
- 18. Pennetta, M., Brancato, V. M., De Muro, S., Gioia, D., Kalb, C., Stanislao, C., Valente A., Donadio C. (2016) Morpho-sedimentary features and sediment transport model of the submerged beach of the 'Pineta della foce del Garigliano' SCI Site (Caserta, southern Italy) Journal of Maps 12:139-146 doi:10.1080/17445647.2016.1171804.
- 19. GIOIA D, BAVUSI M, DI LEO P, GIAMMATTEO T, SCHIATTARELLA M (2016) A geoarchaeological study of the Metaponto coastal belt, southern Italy, based on geomorphological mapping and GIS-supported classification of landforms Geografia Fisica e Dinamica Quaternaria 39:137-148 doi:10.4461/ GFDQ 2016.39.13.
- 20. LAZZARI M., GIOIA D. (2016). Regional-scale landslide inventory map of the central-western sector of the Basilicata region (Southern Apennines, Italy). Journal of Maps, 12(5), 852-859. DOI:10.1080/17445647.2015.1091749
- 21. LAZZARI M., GIOIA D., PICCARRETA M., DANESE M., LANORTE A. (2015). Sediment yield and erosion rate estimation in the mountain catchments of the Camastra artificial reservoir (Southern Italy): A comparison between different empirical methods. Catena, 127, 323-339. DOI: http://dx.doi.org/10.1016/j.catena.2014.11.021.
- 22. SANTANGELO M., GIOIA D., CARDINALI M., GUZZETTI F., SCHIATTARELLA M. (2015). Landslide inventory map of the upper Sinni River valley, Southern Italy. Journal of Maps, 11 (3), 444-453. DOI: 10.1080/17445647.2014.949313
- 23. GIANO S. I., GIOIA D., SCHIATTARELLA M. (2014). Morphotectonic evolution of connected intermontane basins from the southern Apennines, Italy: the legacy of the pre-existing structurally controlled landscape. Rendiconti Lincei, 25, 241-252. DOI: 10.1007/s12210-014-0325-x
- 24. GIOIA D., GALLICCHIO S., MORETTI M., SCHIATTARELLA M. (2014). Landscape response to tectonic and climatic forcing in the foredeep of the southern Apennines, Italy: insights from Quaternary stratigraphy, quantitative geomorphic analysis, and denudation rate proxies. Earth Surface Processes and Landforms, 39, 814-835. DOI: 10.1002/Esp.3544
- 25. Schiattarella M., Giano S.I., Gioia D., Martino C., Nico G. (2013) Age and statistical properties of the summit palaeosurface of southern Italy. Geografia Fisica e Dinamica Quaternaria, 36, 289-302. DOI: 10.4461/GFDQ.2013.36.23
- 26. Santangelo M., Gioia D., Cardinali M., Guzzetti F., Schiattarella M. (2013). Interplay between mass movement and fluvial network organization: An example from southern Apennines, Italy. Geomorphology, 188, 54-67. DOI:10.1016/j.geomorph.2012.12.008
- 27. Sabato L., Longhitano S.G., Gioia D., Cilumbriello A., Spalluto L. (2012) Sedimentological and morpho-evolution maps of the 'Bosco Pantano di Policoro' coastal system (Gulf of Taranto, southern Italy). Journal of Maps, 8, 304-311. DOI: 10.1080/17445647.2012.722791
- 28. GIOIA D., SCHIATTARELLA M., MATTEI M., NICO G. (2011) Quantitative morphotectonics of the Pliocene to Quaternary Auletta basin, southern Italy. Geomorphology, 134, 326-343. DOI: 10.1016/j.geomorph.2011.07.009
- 29. GIOIA D., SABATO L., SPALLUTO L., TROPEANO M. (2011) Fluvial landforms in relation to the geological setting in the "Murge Basse" karst of Apulia (Bari Metropolitan Area, Southern Italy). Journal of Maps, 2011, 148-155. DOI:10.4113/jom.2011.1136
- 30. GIOIA D., MARTINO C., SCHIATTARELLA M. (2011) Long- to short-term denudation rates in the southern Apennines: geomorphological markers and chronological constraints. Geologica Carpathica, 62, 27-41. DOI: 10.2478/v10096-011-0003-1
- 31. DI LEO P., GIOIA D., MARTINO C., PAPPALARDO A., SCHIATTARELLA M. (2011) Geomorphological, mineralogical, and geochemical evidence of Pleistocene weathering conditions in the southern Italian Apennines. Geologica Carpathica, 62, 43-53. DOI: 10.2478/v10096-011-0004-0
- 32. GIOIA D., DI LEO P., GIANO S.I., SCHIATTARELLA M. (2011) Chronological constraints on a Holocene landslide in an intermontane basin of the southern Apennines, Italy: morphological evolution and palaeoclimate implications. The Holocene, 21, 263–273. DOI: 10.1177/0959683610378879
- 33. GIOIA D. & SCHIATTARELLA M. (2010) An alternative method of azimuthal data analysis to improve the study of relationships between tectonics and drainage networks: examples from southern Italy. Zeitschrift für Geomorphologie, 54, 225-241. DOI: 10.1127/0372-8854/2010/0054-0011

"According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV"

Date: 14/02/2022

Signature