

**SIMONA MANCINI**  
*Curriculum vitae*

BORN IN SALERNO, ITALY, ON FEBRUARY 22, 1985

**EDUCATION** \_\_\_\_\_

Nov. 2014 - Apr. 2018      **Doctorate (Doctor Europeus) in "Mathematics, Physics and Applications"**  
*University of Salerno (Italy) and Riga Technical University (Latvia)*  
Curriculum: Physics. Field: Environmental Radioactivity

June 2013 - February 2014 **Advanced Master Course in 'Energy Efficiency Technician'**  
"Innovative industrial research and design of technical solutions aimed at improving energy performance and economic and environmental sustainability (solar, geothermal and photovoltaic systems)."  
Department of Computer, Electronics and Telecommunications Engineering (DIET)  
*Sapienza University of Rome (Italy).*

July 2012      **Master Degree in Civil Engineering**  
*University of Salerno (Italy)*  
Path: Constructions

**RESEARCH ACTIVITIES** \_\_\_\_\_

August 2025-present **Research Fellow**  
Department of Computer and Electrical Engineering and Applied Mathematics (DIEM)  
*University of Salerno (Italy)*

Jan. 2022- Dec. 2024 **Researcher RTD-A**  
Department of Computer and Electrical Engineering and Applied Mathematics (DIEM)  
*University of Salerno (Italy)*

Aug. 2019 - Dec. 2021 **Research Fellow**  
Department of Computer and Electrical Engineering and Applied Mathematics (DIEM)  
*University of Salerno (Italy)*

Jan. 2019-Aug. 2019 **Postdoc fellow**  
Department of Industrial Engineering (DIIN)  
*University of Salerno (Italy)*

Nov. 2014-Apr. 2018 **PhD Student**  
Department of Physics, *University of Salerno (Italy)* and Department of Construction Technologies, *Faculty of Engineering, Riga Technical University* (Jul.-Oct. 2017).

Feb.- Jul. 2010 **Technical operator specialized in Radon measurement**  
CUGRI (Inter-university consortium for major geological and hydrogeological risks),  
*University of Salerno and University of Naples (Italy).*

**EDUCATIONAL ACTIVITIES** \_\_\_\_\_

March 2026 - September 2026 ; March 2025 - September 2025

**Physics I - contract professor**  
Department of Industrial Engineering (DIIN)  
*University of Salerno (Italy)*

January 2025 - February 2025                      **Environmental Technical Physics- contract professor**  
ITS ACADEMY ERMETE-Avellino

Sep. 2020-Dec. 2024                                      **Physics I**  
Department of Computer and Electrical Engineering and Applied Mathematics  
(DIEM)  
*University of Salerno (Italy)*

Sep. 2015-present                                      **Supervisor/co-supervisor of bachelor's/master's thesis**

Sep. 2015-present                      **member of the examination boards Physics 1, Physics 2, General Physics, Physics for Biomedical applications**  
Department of Computer and Electrical Engineering and Applied Mathematics (DIEM)  
Department of Civil Engineering (DICIV)  
*University of Salerno (Italy)*

September 2015-2019                                      **students Tutor for the course of Physics I and II**  
Department of Computer and Electrical Engineering and Applied Mathematics (DIEM)  
Department of Civil Engineering (DICIV)  
*University of Salerno (Italy)*

#### **Teacher/lecture by invitation**

Summer School on Applications of Radiation Physics to Cultural Heritage (SARP-CH) Buenos Aires (Argentina). 9-11<sup>th</sup> March 2026 -on line. Organized by International Radiation Physics Society (IRPS).

ERASMUS PLUS KEY ACTION 1- BLENDED INTENSIVE PROGRAM (BIP) “Innovative Physical Technologies for Sustainable Construction and Cultural Heritage Preservation & Conservation” Online Session: 29-30 May, 5-6 June 2025 In-presence session at UNISA FISCIANO CAMPUS16 – 20 June 2025. Organized by University of Salerno, University of Kragujevac, Riga Technical University.

AIAR School - Characterization and monitoring techniques of buildings of historical-artistic interest at the Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences (MIFT) of the University of Messina. 17-18 April 2023. Organized by Department of Mathematics and Computer Sciences, Physical Sciences and Earth Sciences.

Information seminar "Radon Gas: Understanding the Effects and Implementing Countermeasures, ". February 6, 2020. Organized by: Salerno Order of Engineers, CNA, ANCE-AIES Grand Hotel Salerno.

Information Day “The Geologist’s Contribution to Defining Radon Risk in Campania,” Gaetano Sessa Council Chamber, Municipality of Fisciano, October 25 , 2019. Organized by Order of Geologists of Campania and CUGRI.

«The basics on Radon management in built environment»- Summer school “Sustainable construction: from theory to practice”, 28July-8August 2019, Riga Technical University, Riga, Latvia. Organized by Riga Technical University.

«The basics on Radon management in built environment»- Summer school “Sustainable construction: from tradition to innovation”, 19-30 August 2018, Riga Technical University, Riga, Latvia .

Seminar “Radon and its Surrounding Areas,” Salerno, May 31, 2018. Organized by the Order of the Engineers of the province of Salerno.

«The basics on Radon management»- invited lecture- Course in Construction Technology, Department of Construction Science and Technology, Faculty of Engineering, Riga Technical University, LV, 20 September 2017.

"Health and safety in the workplace: assessment, management, and prevention of radon risk, work-related stress, asbestos, and fire". November 10, 2016. Professional Seminar organized by Confindustria Salerno.

«Radioactivity and the Built Environment», Sala del Gonfalone, Municipality of Salerno, March 2, 2016. Organized by Cugri and Municipality of Salerno.

Professional course “RADON and NORM (Naturally Occurring Radioactive Materials ) What the professional engineer cannot fail to know", Salerno, 17 / 24 / 31 May 2014. Organized by the Order of the Engineers of the province of Salerno.

Cycle of seminars for high school students: “Environmental Radioactivity: NORM and Radon” - “Science in Schools” program, State Scientific High School "G. Da Procida", Salerno (February - March 2013).

### **THIRD MISSION**

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- 2022 Participation (interview) in the national television program "Newton Science Project" – RAI Scuola | University of Messina
- 2019 Finalist at the national competition for innovative start-ups **ERG- Regeneration Challenge** – January 31, Stazione Marittima, Salerno-Project manager and presenter: Amb.Ra net, radon sensor system.
- 2017 Finalist at the **Open Innovation Camp - Competition for innovative ideas** Sponsored by **CISCO Systems** - January 17, ItaliaCamp , Rome. Project manager and presenter: SIREM-radon sensor system.
- 2016 Winner of **ALI Call for Proposals "Acceleration Program for Innovative Enterprises"** Project manager and presenter: SIREM.
- 2016 Finalist at the **ICSB World Conference and Academy** Innovative Ideas Competition. Stevens Institute, 12 - June 18, Hoboken, New Jersey. Member of the finalist team . Project: Breatheasy , indoor air quality sensor system.
- 2015 Finalist for the **STARTCUPCAMPANIA Award**. Project manager and presenter: Amb.Ra new material certifications.

### **OTHER ROLES/ SCIENTIFIC ACTIVITIES**

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May 2024-present **Director's delegate for Coordination and Promotion**  
International center for advanced studies and research THERADE- Innovative Technologies for Radiations

Jan. 2025-present **Member of the scientific technical committee for the regional program  
on the identification of the radon priorities areas**  
CU.GRI Interuniversity Consortium for the Forecasting and Prevention of Major Risks - University of  
Salerno and University of Naples Federico II

Feb. 2024-present **Scientific collaborator in the Radon and environmental radioactivity sector**  
CU.GRI Interuniversity Consortium for the Forecasting and Prevention of Major Risks - University of  
Salerno and University of Naples Federico II

May 2020-today **Co-director International Summer school 'sustainable construction'**  
University of Salerno and Riga Technical University

Nov. 2014-present **Technical and Quality Assurance Manager**  
Environment and Radiation Laboratory ( Amb.Ra. ), ISO9001:2015, DIEM  
*University of Salerno (Italy)*

### **Editorial Board**

Review editor- Frontiers in Built Environment

Review Editor in Indoor Environment (specialty section of Frontiers in Mechanical Engineering, Frontiers in  
Built Environment and Frontiers in Energy Research)

### **Member of the Scientific Committee**

AIRP National Conference on Radiation Protection – Lucca, September 25-27, 2024.

### **Member of the Organizer Committee**

1. INTERNATIONAL WOMEN'S DAY 2025 THERADE cares about WOMEN'S EQUALITY "Innovation, Inclusion and Equality of Opportunity: the fundamental role of women in the Academy, Education, Science, and Entrepreneurship" - Engineering Degree Hall , University of Salerno, March 10, 2025.
2. International Symposium on “Sustainable Construction”, 2<sup>nd</sup> September 2021. Online event
3. International Symposium on “Sustainable Construction”, 3<sup>rd</sup> September 2020. Online event.
4. 5th TCA2020 Webinar D000066 - Management of environmental noise and community noise. 23 September 2021 edited by ARPAC, ARPAT, CIAC.
5. International Summer School “Sustainable Construction”, Riga Technical University 29<sup>th</sup> July 8<sup>th</sup> August 2019. Organizer: RTU.
6. International Conference "9th Young Research Meeting", 8<sup>th</sup> -10<sup>th</sup> July 2018, University of Salerno. Organizer: IPN.
7. National Conference "Radioactive sources: from models to measurements". 8-10 November 2017, Lloyd's Baia Hotel, Salerno. Organizer: AIRP.
8. Seminar "Radioactivity and built environment", 2 March 2016, Sala del Gonfalone , Salerno.
9. International Conference “Italian Radon and NORM Workshop (IRANOW2015): Research Advances on Radon and NORM”, 15-17 October 2015, University of Salerno. Organizer: CUGRI-Interuniversity consortium for major geological and hydrogeological risks.

10. Round table "Opportunities for funds in the new European program 2014-2020", 27 March 2014, Energymed2014, Naples. Organizer: Forum PA, Renael , Anci Campania.

#### **Chair of Conference Session**

International Conference on Metrology for Archeology and Cultural Heritage Bergamo, Italy, October 15-16, 2025 (Special session organizer)  
International Conference on Metrology for Archeology and Cultural Heritage Valletta, Malta, October 7-9, 2024 (Special session organizer)  
International Conference on Applied Physics, Simulation and Computing, APSAC 2023 Venice, Italy 22 June 2023  
International Conference on Metrology for Archeology and Cultural Heritage Rome, Italy, October 19-21, 2023  
International Conference on Environmental Radioactivity, ENVIRA 2021, Greece ( online due to Covid pandemic)

#### **Reviewer**

Proceedings of the International Conference METROARCHEO 2025- University of Bergamo, Italy  
Proceedings of the International Conference METROARCHEO 2024- University of Valletta Malta  
Proceedings of the International Conference METROARCHEO 2023- University of Rome Rome 3  
Proceedings of the International Conference "9th Young Research Meeting", 8<sup>th</sup>-10<sup>th</sup> July 2018, University of Salerno  
American Journal of Environmental Engineering and Science - AASCIT American Association for Science and Technology.  
Applied Science - MDPI  
Sustainability- MDPI  
Radiation Measurements – Elsevier  
Results in Engineering - Elsevier  
Ecotoxicology and Environmental Safety- Elsevier

## **PROJECTS**

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Bio-compatible construction materials from a radiological point of view and aimed at improving environmental quality and living well-being *Role: Researcher*

System for monitoring, predicting, controlling, and managing radon concentrations in indoor environments (indoor radon monitoring and prediction system). Funding type: University funds . University of Salerno . *Role: Manager.*

PROMUD - definition of a multidisciplinary monitoring protocol for mud volcanoes (MUD ) *Role: research member*

EU COST NETWORK: WATSON- WATER isotopes in the critical zone from groundwater recharge to plant transpiration *Role : research member*

Health Effects of Radon and Multipollutant ExposureS in Micro-Environments (HERMES-  $\mu$ E ) . HERMES-ENVHLTH-02-02- HORIZON HEALTH. Project submitted. *Role: Researcher and Coordinator Task 4.6 WP4.*

Project to reduce the social cost caused by bacterial infections post-surgery – Acronym BIPS Decree No. 4686 of 11/16/2017, with which the concessions were granted for project No. F/050213/01-02-03/X32 of

industrial research and experimental development rely on the Fund for Sustainable Growth. Horizon 2020 - PON 2014/2020. Start date 02/05/2017 and end 02/08/2020 of the project. *Role : coordination and support to the local PI ( physical area )*

## **PATENTS**

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First author of the Italian patent No. 10202000006313 ( sensor network for monitoring and forecasting Radon gas in closed environments ) filed on 03/25/2020 at the Patent and Trademark Office, Italy.

## **INTERNATIONALIZATION**

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29 Mar. - 5 Apr. 2023 ERASMUS + staff training (c/o University of Novi Sad - Serbia)  
13-18 May. 2024 ERASMUS + staff teaching (c/o Riga Technical University - Latvia )  
30 Jul-1 Oct 2017 3 months research activities (c/o Riga Technical University - Latvia )

## **AWARDS AND RECOGNITIONS**

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2023 **EDITORS' CHOICE PAPER** - MDPI NANOMATERIALS

2016 **STARTAWARD 2016 - Competition for Innovative Ideas** - LISA LAB - University of Salerno. Project creator and presenter: Amb.Ra. Bio-sustainable certifications

## **OTHER TITLES**

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Mar. 2025 National Scientific Qualification - second level- Competition Sector 02/D1  
*Ministry of University and Research (Italy)*

Mar. 2016 FCE (B2) Cambridge School Certification

Jul. 2014 Qualification as a Building Energy Certifier  
*Second University of Naples (Italy)*

Jun. 2013 Qualification as Construction Site Safety Coordinator (CSP-CSE)  
Qualification as Head of Prevention and Protection Service (RSPP)  
Qualification to practice as an engineer (Section A, Civil and Environmental Sector)  
*Order of Engineers of the Province of Salerno (Italy)*

## **ACTIVITY PROFESSIONAL**

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Mar. 2015- Dec. 2019 **Civil Engineer**  
Area: Technical services for civil engineering.

Feb. 2014-Aug. 2014 **Project Office - Internship**  
*ANEA (Neapolitan Agency for Energy and Environment) - Naples (Italy)*

Area: Calls for Proposals and Funding Observatory - Identification of regional, national, and European funding opportunities. Responsible for content and drafting summary documents on fund opportunities.

Oct.-Jun. 2013 **Project Office - Internship**  
*Private engineering studios- Salerno (Italy).*

Area: CAD drawings. Drafting of technical drawings, building permits, and steel structure inspections.

Jan. - Apr. 2012

**Technical Office - Internship**  
*Immobiliare srl, Lancusi (Italy)*

Area: Preparation of bills of quantities. Document review and safety updates, preparation of operational safety plans.

## **AFFILIATIONS**

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### **Professional Organizations and Orders**

International Physicists Network (IPN)

European Geoscience Union (EGU)

Italian Association of Radiation Protection (AIRP)

Professional Order of Engineers of the Province of Salerno (ORDINGSA)

## **PUBLICATIONS**

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### **ARTICLES IN PEER- REVIEWED JOURNALS , INVITED BOOK CHAPTERS , PROCEEDINGS**

#### **2014**

**Mancini S** , Guida M, Guida D, Cuomo A , Fiore P, Sicignano E, Assessing and modeling the contribution to Indoor Radon from the building materials: the SIREM© Model. Latest Trends in Energy, Environment and Development pp 398-407. ISBN: 978-960-474-375-9.

**Mancini S** , Guida M, Guida D, Cuomo A , An overview on the new recommendations and requirements on radon protection (2013/59/Euratom) and the actual state of art: the case-study of the Campania Region, Southern Italy. Recent Advances in Civil Engineering and Mechanics pp262-271 ISBN: 978-960-474-403-9.

#### **2015**

**Mancini S** , Guida M, Guida D, Cuomo A, Siervo V, An Innovative Tool for the Environmental Planning based on a Hierarchical Adaptive Multi-scale Geogenic Approach for the Mapping of Radon-prone Areas on a Regional Scale and the Assessment of Indoor Radon Risk for Population and Workers: The Case-study of the Campania Region, Southern Italy. In Audrey M. Stacks 'Radon: Geology, Environmental Impact and Toxicity Concerns' pp.1-50 Nova Science Publishers, Inc. ISBN:9781634637770 Chapter in a Volume.

**Mancini S** , Guida M, Guida D, Cuomo A, The validation of a simplified model to predict indoor radon activity concentrations: the SIREM model, In: Italian Radon and Norm Workshop, Research and Advances on Radon and Norm Applications pp.25-26 ISBN:9788890728167 ID:75026 Abstract in Conference proceedings (274).

Cuomo A, Guida D, Guida M, Siervo V, **Mancini S** , Radon-Prone areas assessment in Campania Region. In: Italian Radon and Norm Workshop, Research and Advances on Radon and Norm Applications pp.14-15 ISBN:978-88-907281-6-7 Abstract in Conference proceedings (274).

Guida D, Guida M, Cuomo A, **Mancini S** , Siervo V, The RAD Campania Program: Premises, activities, state of art and perspective. In: Italian Radon and Norm Workshop, Research and Advances on Radon and Norm Applications pp.18-20 ISBN:978-88-907281-6-7 Abstract in Conference proceedings (274).

#### **2016**

**Mancini S** , Caliendo E, Guida M, Bisceglia B, Devitalization of biodeteriogens on tuff samples. Microwave treatment: capillary rise and radon exhalation. Proceedings of the VIIth Conf. “Diagnosis, Conservation and Valorization of Cultural Heritage”, Naples, pp. 203:214 ISBN 978-88-942118-0-1.

## 2017

V. Discepolo, **S. Mancini** , A. Cuomo, D. Guida, M. Guida Radon-222 exhalation from building materials with E-Perm electret dosimetry and short-lived progeny alpha spectrometry with RAD7. Preliminary assessment of the potential risk associated with internal exposure in living and working environments. In: AIRP Sources and radiation: from models to measurements pp. 489 ISBN 9788888648453 (Abstract, in Italian )

D. Moscariello, D. Guadagnuolo, **S. Mancini** , A. Cuomo, D. Guida, M. Guida Risk assessment associated with internal exposure to radon-222 in water intended for human consumption. Results of the RAD\_CAMPANIA program. In: AIRP Sources and radiation: from models to measurements pp. 399 ISBN 9788888648453 (Abstract, in Italian )

Cuomo A, Guida D, **Mancini S** , Guida M. The RAD\_CAMPANIA approach for planning, prevention and evaluation of the impact on anthropic and natural environments resulting from exceeding the threshold values of Radon gas concentration In: AIRP Sources and radiation: from models to measurements pp452 ISBN 9788888648453 ( Proceeding , in Italian )

**S Mancini** , M Guida, S Valbonesi, B Bisceglia Electromagnetic fields and everyday life. Innovative applications In: AIRP Sources and radiation: from models to measurements pp. 616 ISBN 9788888648453 ( Proceedings , in Italian )

**S Mancini** , E Caliendo, M Guida and B Bisceglia, Preliminary assessment, by means of Radon exhalation rate measurements, of the bio-sustainability of microwave treatment to eliminate biodeteriogens infesting stone walls of monumental historical buildings. IOP Conf. Series: Materials Science and Engineering 251 (2017) 012026 doi:10.1088/1757-899X/251/1/012026

## 2018

**Mancini S** , Guida M, Guida D, Cuomo A Modeling of indoor Radon activity concentration dynamics and its validation through in-situ measurements on regional scale. AIP Conf. Series: Mathematical methods and computational techniques in science and engineering. AIP Conference Proceedings 1982, 020043 (2018); doi :10.1063/1.5045449

**Mancini S.** , Vilnitis M., Guida M., Cuomo A., Guida D. Assessing the radon impact in natural and anthropogenic environments and the associated health risk for workers and the population with an innovative multidisciplinary multiscale geogenic approach. In: (ed.): Giovanna Bianchi Bazzi, 104th National Congress of the Italian Physical Society, Arcavacata di Rende Cosenza 17-21 September 2018. p. 45, BOLOGNA: Italian Physical Society, ISBN: 9788874381135 (Abstract in Conference Proceedings).

Bisceglia B., Guida M., **Mancini S.** ELF Magnetic Fields. Effects on Plant Germination and Growth. In: (edited by): Giovanna Bianchi Bazzi, 104th National Congress of the Italian Physical Society, Arcavacata di Rende Cosenza 17-21 September 2018. p. 213, BOLOGNA: Italian Physical Society, ISBN: 9788874381135 (Abstract in Conference Proceedings).

Bisceglia B., Guida M., **Mancini S.** Disinfestation of agricultural land with microwave exposure. In: (edited by): Giovanna Bianchi Bazzi, 104th National Congress of the Italian Physical Society, Arcavacata di Rende Cosenza 17-21 September 2018. p. 213, BOLOGNA: Italian Physical Society, ISBN: 9788874381135 (Abstract in Conference Proceedings).

Guida M., Falanga M., **Mancini S.**, Ismail AH, Turco MC, Pilotti I. IRBIS (Ionizing Radiation exposure of Blood Samples) project: an innovative interdisciplinary approach of Biological Dosimetry to investigate blood and cell samples exposed to Radon. In: (ed.): Giovanna Bianchi Bazzi, 104th National Congress of the Italian Physical Society, Arcavacata di Rende Cosenza 17-21 September 2018, p. 91, BOLOGNA: Italian Physical Society, ISBN: 9788874381135 (Abstract in Conference Proceedings).

**Mancini S.**, Caliendo E., Guida M., Bisceglia B. Measuring radon exhalation rates as a criterion to assess the bio-sustainability of microwave treatment to eliminate biodeteriogens infesting stone walls of monumental historical buildings. In: (ed.): Giovanna Bianchi Bazzi, 104th National Congress of the Italian Physical Society, Arcavacata di Rende Cosenza 17-21 September 2018, p. 186, BOLOGNA: Italian Physical Society, ISBN: 9788874381135 (Abstract in Conference Proceedings).

**Mancini S.**, Cuomo A., Guida M., Guida D. Research Program RAD\_CAMPANIA: Main results on the assessment of radon in living and working environments and in different environmental matrices: soils, water bodies and building materials. In: (ed.): Giovanna Bianchi Bazzi, 104th National Congress of the Italian Physical Society, Arcavacata di Rende Cosenza 17-21 September 2018. pp. 48-49, BOLOGNA: Italian Physical Society, ISBN: 9788874381135 (Abstract in Conference Proceedings).

Bisceglia B., Guida M., **Mancini S.**, Ribera F. Innovative Techniques for the Treatment of Works of Art. In: (ed.): Giovanna Bianchi Bazzi, 104th National Congress of the Italian Physical Society, Arcavacata di Rende Cosenza 17-21 September 2018. p. 186, BOLOGNA: Italian Physical Society, ISBN: 9788874381135 (Abstract in Conference Proceedings).

Del Regno R., **Mancini S.**, Bisceglia B., Guida M., Ribera F. Moisture in The Historical Walls. Numeric Simulation and Innovative Applications. Proceedings of the IX Conference “Diagnosis for the conservation and Valorization of Cultural Heritage”, pp. 14-26, Naples. ISBN 9788895609423 Cervino Edizioni .

Guarnaccia C., **Mancini S.**, Quartieri J., Breton JGC, Breton RMC Prediction of CO concentrations in Monterrey, Mexico, by means of ARIMA models. WSEAS Transactions on Environment and Development, 14 pp.653-661 .

## 2019

M. Guida, **S. Mancini**, C. Guarnaccia, J. Quartieri “Proposal for a Combined Index for the measurement of environmental quality linked to Physical Agents ( Physical Agents environmental Quality Index – PAQI) ” VII

AIRP National Conference on Physical Agents, Stresa, 5-7 June 2019. (abstract in conference proceedings).

**S. Mancini**, D. Guida, M. Guida, A. Cuomo et.al. “Physical agents and their bio -sustainability in the urban and built environment. Project proposal for a new European COST ( Cooperation in Science and Technology) Action: Ph. A. Bio ”, “VII AIRP National Conference on Physical Agents, Stresa, 5-7 June 2019. ( abstract in conference proceedings).

**S. Mancini**, M. Guida, D. Guida, A. Cuomo, “The proposal of an integrated approach for the Radon mapping and indoor air measurements in volcanic and hydrothermal areas as tool for volcano surveillance and health issues”, EGU General Assembly 2019, Wien 7-12 April 2019.

Viccione , G., Guarnaccia, C., **Mancini, S.**, Quartieri, J. (2019). On the use of ARIMA models for short-term water tank levels forecasting. WATER SCIENCE AND TECHNOLOGY: WATER SUPPLY, p. 1-13, ISSN: 1606-9749, doi : 10.2166/ws.2019.190

## 2020

**S. Mancini**, M. Guida et al. (2020) Human Bio-Monitoring and Bio-Indicators for Health Risk Management Associated to Chronic Exposures in High Radon Concentration Environments: A Review, Chapter in a book, Radionuclides: Properties, Behavior and Potential Health Effects, Todorović and J.Nikolov (Editors) Series: Environmental Science, Engineering and Technology, Nova Publisher ISBN : 978-1-53617-379-6

Guarnaccia C., Longobardi A., **Mancini S.** , Viccione G.( 2020) Drinking Water Tank Level Analysis with ARIMA Models: A Case Study. Environ. Sci. Proc., 2(1), 33 <https://doi.org/10.3390/environsciproc2020002033>

**S Mancini** , M Guida, A Cuomo, D Guida (2020) A geogenic approach for the Radon monitoring and the exposure assessment at a regional scale. The results of the Rad\_Campania project. Paper on a special issue: Understanding volcanic processes through geophysical and volcanological data investigations: some case studies from Italian sites (EGU2019GMPV.5session, COV10S01.11 session), *under revision* .

G Graziuso, M Grimaldi, **S Mancini** , J Quartieri and C Guarnaccia (2020). Crowdsourcing Data for the Elaboration of Noise Maps: a Methodological Proposal. 4<sup>th</sup> Int. Conf. on Applied Physics, Simulation and Computing (APSAC2020). Conference Proceedings Journal of Physics (IOP), *in press* .

A Mascolo, **S Mancini** , G Graziuso, J Quartieri and C Guarnaccia (2020). Comparison between Sound Pressure Levels and Perception in a University Campus with a Soundscape Approach. 4<sup>th</sup> Int. Conf. on Applied Physics, Simulation and Computing (APSAC2020) Conference Proceedings Journal of Physics (IOP), *in press* .

**S Mancini** , M Guida, G Graziuso, J Quartieri and C Guarnaccia (2020). Development of an Environmental Quality Index to Assess Physical Agents Pollution. 4<sup>th</sup> Int. Conf. on Applied Physics, Simulation and Computing (APSAC2020) Conference Proceedings Journal of Physics (IOP)

## 2021

**S. Mancini** ; M. Vilnitis; M. Guida (2021). A Novel Strategy for the Assessment of Radon Risk Based on Indicators INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH (IJERPH), 18, 1-13 DOI 0.3390/ijerph18158089.

Singh, D.; Francavilla, AB; **Mancini, S** .; Guarnaccia, C. Application of Machine Learning to Include Honking Effect in Vehicular Traffic Noise Prediction. *Appl. Skiing*. **2021** , *11* , 6030.

## 2022

**S. Mancini**; M. Vilnitis; N. Todorović; J. Nikolov; M. Guida (2022). Experimental Studies to Test a Predictive Indoor Radon Model. INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH (IJERPH), 19, 6056-6063. DOI 10.3390 /ijerph19106056.

G. Graziuso, G.; AB Francavilla; **S. Mancini** ; M. Guida, M.; C. Guarnaccia (2022). Physical Agents Quality Index (PAQI): Application in a University Campus. JOURNAL OF PHYSICS. CONFERENCE SERIES, 2162, 1-8. DOI 10.1088/1742-6596/2162/1/012008.

## 2023

S. Aközcan , **S. Mancini** , S. Özden, V. Venuti, F. Caridi, G. Paladini, M. Guida. (2023). Comparison of Radioactivity and Metal Pollution Concentrations in Marine Sediment Samples Obtained from the Aegean Sea (Turkey) and the Calabria Region (Italy). Published 19 June 2023 Environmental Science WSEAS TRANSACTIONS ON ENVIRONMENT AND DEVELOPMENT DOI:10.37394/232015.2023.19.57.

LA Alasadi, AA Abojassim , M. Guida, **S. Mancini** . (2023). Measurements and mapping natural radioactivity in the city of Najaf, Al-Najaf Governorate (Iraq), by using track detector CR-39 and geographical information system (GIS). APSAC CONFERENCE VENICE JUNE 2023.

S. Akozcan , **S. Mancini**, N. Todorovic, S. Ozden and M. Guida (2023). Assessment of the natural radioactivity content in typical building materials employed in the Italian cultural heritage. MetroArchaeo 2023, ROME.

**S. Mancini** , N. Todorovic, S. Akozcan , D. Guida, A. Cuomo and M. Guida. (2023). Monitoring of indoor Radon in historical heritage buildings by means of passive and active methods. A case study. MetroArchaeo 2023, ROME.

R. Aziz; M. Falanga; J. Purenovic ; **S. Mancini**, P. Lamberti, M. Guida (2023). A Review on the Applications of Natural Biodegradable Nano Polymers in Cardiac Tissue Engineering. NANOMATERIALS, 13, 1374-1401. DOI 10.3390/nano13081374.

Rossi, D.; Mascolo, A.; **Mancini, S** .; Ceron Breton, JG; Ceron Breton, R.M.; Guarnaccia, C. Modeling and Forecast of Air Pollution Concentrations during COVID Pandemic Emergency with ARIMA Techniques: the Case Study of Two Italian Cities WSEAS TRANSACTIONS ON ENVIRONMENT AND DEVELOPMENT. Vol. 19. Pages 151-162 ISSN:1790-5079.

Mascolo, A.; Rossi, D.; Pascale, A.; **Mancini, S** .; Coelho, M.C.; Guarnaccia, C. Modeling and Forecast of Air Pollution Concentrations during COVID Pandemic Emergency with ARIMA Techniques: the Case Study of Two Italian Cities WSEAS TRANSACTIONS ON ENVIRONMENT AND DEVELOPMENT. Vol. 19. Pages 151-162 ISSN:1790-5079.

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## **2026**

Guida, M., Mancini, S., Pehlivanoglu , S.A., Cuomo, A., Guida, D. Environmental and health risk assessment of radon in Capodifiume Lake: Investigating elevated radon levels in a karst aquifer system. Journal of Environmental RadioactivityOpen source preview, 2026, 293, 107912

## **CONFERENCE PRESENTATIONS**

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### **ORAL**

International Conference on Metrology for Archeology and Cultural Heritage Bergamo, Italy, October 15-16, 2025. “ *Historical urban centers built in tuff and indoor radon exposure.*”

NEM 2025Engineering and Material Technologies Conference 18-20 September 2025, Turkey ( online ) . “ *M onitoring of indoor radon in historical buildings and cultural heritage sites. Definition of a procedure based on indicators* ”

Nanoinnovation , 15 September 2025, Rome, Italy. “ *Monitoring of indoor Radon in historical heritage buildings*”

International Conference on Metrology for Archeology and Cultural Heritage Valletta, Malta, October 7-9, 2024. " *Monitoring protocol for preliminary indoor radon surveys in cultural heritage sites. A case study.*"

36th Annual Conference of the International Society of Environmental Epidemiology ISEE 2024, Santiago (CHILE), (online) “ *Indoor radon exposure: novel strategies and tools for management and control* ”

International Conference on Applied Physics, Simulation and Computing, APSAC 2023 Venice, Italy 22 June 2023 “ *Development of a Pre-Diagnosis Procedure for the Evaluation of Indoor Radon Potential in Buildings*”

International Conference on Metrology for Archeology and Cultural Heritage Rome, Italy, October 19-21, 2023 “ *XRF investigation of the Monument to the Fallen of the Great War by Francesco Jerace in San Ferdinando (Reggio Calabria, Italy)*” and “*Monitoring of indoor Radon in historical heritage buildings by means of passive and active methods. A case study.*”

1st International Workshop on “ *MOdelling , SIMulation and DAta Analysis in Engineering and Physics Applications*” MOSIDA 2020 - Online session, <sup>May</sup> 25th, 2020 within the 4th International Conference on “*Applied Physics, Simulation and Computing*” APSAC 2020 - May 23-25, 2020. *Development of an Environmental Quality Index to Assess Physical Agents Pollution.*

International Conference of Conservation and Valorization of Cultural Heritage «Diagnosis of Cultural Heritage », 13th <sup>-14th December 2018,</sup> National Archaeological Museum , Naples. *Moisture in the Historical Walls. Numeric Simulation and Innovative Applications.*

International Conference on Mathematical Modeling and Computational Technology in Science and Engineering «MMCTSE 2018» Cambridge, UK, February 16<sup>th</sup> -18<sup>th</sup> , 2018. *A Modeling of indoor Radon activity concentration dynamics and its validation through in-situ measurements on regional scale. AIP Conf. Series: Mathematical methods and computational techniques in science and engineering.*

International Conference on Innovative Materials, Structure and Technologies, Riga Technical University, Latvia, September 27<sup>th</sup> -29<sup>th</sup> , 2017. *Preliminary assessment, by means of Radon exhalation rate measurements, of the bio-sustainability of microwave treatment to eliminate biodeteriogens infesting stone walls of monumental historical buildings.*

International Conference on Conservation and Valorization of Cultural Heritage "Diagnosis of Cultural Heritage," December 15-16 · 2016 , Hotel Ambassador, Naples. *Devitalization of biodeterioration agents in tuff samples. Microwave treatment: capillary rise and radon release.*

National Meeting 'Borsa della Ricerca ' , University of Salerno, May 19<sup>th</sup> 2016. *Amb.Ra . Lab. Innovative ideas on Radon.*

International Conference «Italian Radon and Norm Workshop: Research Advances on Radon and NORM» Salerno, October 15<sup>th</sup> -17<sup>th</sup> , 2015. *The validation of a simplified model to predict indoor radon activity concentrations: the SIREM model.*

WSEAS Meeting -7<sup>th</sup> International Conference on Environmental and Geological Science and Engineering. Salerno, June 3rd <sup>-5th</sup> , <sup>2014.</sup> *Assessing and modeling the contribution to Indoor Radon from the building materials: the SIREM© Model*

## ***POSTERS***

V. Discepolo, **S. Mancini** , A. Cuomo, D. Guida, M. Guida “Radon-222 exhalation from building materials with E-Perm electret dosimetry and short-lived progeny alpha spectrometry with RAD7. Preliminary assessment of the potential risk associated with internal exposure in living and working environments.” AIRP National Conference , Salerno, 8-11 November 2017.

**S. Mancini** , M Guida., D. Guida, A. Cuomo “The proposal of an integrated approach for the radon mapping and indoor air measurements in volcanic and hydrothermal areas as tool for volcano surveillance and health issues”. EGU General Assembly 2019 Vienna, Austria 7-12 April 2019.

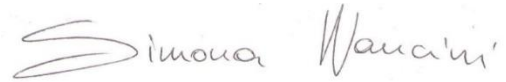
## **STATEMENTS**

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I declare, aware of the responsibilities and criminal penalties established by law for false attestations and misleading declarations, under my personal responsibility (art. 76 Presidential Decree no. 445/2000) that I have not received criminal convictions and am not under criminal proceedings.

I declare, aware of the responsibilities and criminal sanctions established by law for false attestations and mendacious declarations, under my personal responsibility (art.76 DPR n.445/2000) that what has been declared In this document it corresponds to the truth.

I authorize the processing of my personal data pursuant to Legislative Decree 196/2003.

 Simona Mancini