

CURRICULUM VITAE

Filippo Calcerano

1. Education:

- 2015-Sapienza University of Rome Dept. PDTA: Ph.D. in Environmental Design. The thesis "Technological design for bioclimatic architecture. Strategies and natural ventilation systems for passive cooling in environmental and energy retrofit in the Mediterranean climate" achieved excellent evaluation.
- 2011-IN/ARCH: Post-graduate Master degree in Digital Architecture: Digital Designer of sustainable architecture.
- 2008- Sapienza University of Rome Faculty of Architecture Vallegiulia: Master Degree in Architecture U.E.
- Courses: IN/ARCH - BIM Learning Intermediate; Georgia Institute of Technology/edX - Introduction to Computing, AICARR/IBPSA - Specialised training on thermal and energy dynamic simulation of buildings.

2. Membership of professional/research bodies:

- Member of the Expert Team Climate Heritage Network Working group 3 Building and Infrastructure
- Member of the ARCHETIPO ARChitectural HERitage Thesaurus through Integrated digital Procedures and Open data working group of the DARIAH-EU research infrastructure
- Member of the International Building Performance Simulation Association (IT chapter),
- Member of the International Energy Agency Energy in Buildings and Communities Programme Annex 91 - Open BIM for Energy Efficient Buildings
- Member of the Italian Society of Architectural Technology (SITdA),
- Member of the order of architects of Rome.

3. Affiliation:

Consiglio Nazionale delle Ricerche (CNR) - Institute of Heritage Science / Istituto di Scienze del Patrimonio Culturale (ISPC)

4. Present position:

ISPC-CNR Senior Researcher

Responsible of the Energy and Environmental Analysis facility of the E-RIHS MOLAB

2013 to current date: Professor of the 2nd level postgraduate Master Environmental and Technological Design (ETD) "Green building/architectural and urban requalification/green blue infrastructure". Course: Simulation-based environmental design of external microclimate.

5. Key/Area(s) qualifications:

- energy and environmental improvement of built heritage through diagnostics and numerical simulation of buildings and external microclimate;
- digitalisation of heritage analysis, design and management processes (Heritage Building Information Modeling - HBIM);
- decision support (Multicriteria Analysis);
- interoperability, semantic enrichment of HBIM models, Internet of Things (IoT).

Filippo Calcerano is a Senior Researcher at the Institute of Heritage Science of the National Research Council of Italy (ISPC-CNR), within the Built Heritage innovation Lab. He is also responsible for the Energy and Environmental Analysis facility of the Mobile Laboratory (MOLAB) of the Italian node of the European Research Infrastructure on Heritage Science (E-RIHS.it).

Dr. Calcerano is an expert in energy and environmental improvement of built heritage, mitigation and adaptation interventions, focusing on diagnostics, building and microclimate performance simulations (BPS), and Heritage Building Information Modelling (HBIM). Through extensive national and international professional and academic experience, he has developed a strong sensitivity to interdisciplinary research and to bridging knowledge gaps between diverse research fields and stakeholders. His work aims to streamline innovative, efficient, and sustainable digital workflows applied to built heritage.

His coordination and participation in numerous regional, national, European, and international research projects have deepened his expertise in integrating environmental design approaches within conservation theory, addressing the culture gap in climate policy and supporting culture-based climate action. He has led several interdisciplinary teams that have produced significant scientific advancements in workflows for energy and environmental improvement of built heritage and in the interoperability between Heritage BIM and numerical simulation.

As a member of the Climate Heritage Network, dr. Calcerano is also engaged in outreach and advocacy activities to address the "culture gap" in climate policy and support culture-based climate action and technological transfer activities.