1. Supervisor

Supervisor: Prof. Rosalba D'Onofrio – School of Architecture and Design (SAAD), University of Camerino (UNICAM)

Brief CV:
Rosalba D'Onofrio is an Associate Professor of Urban Planning (ICAR/21) at the School of Architecture and Design, University of Camerino, Italy. She serves as the Competitive Research Delegate for her School and is a core member of the teaching staff for the PhD in Sustainable Urban Planning. Her research investigates the nexus between urban planning, climate change adaptation, and urban health, aiming to innovate traditional spatial planning tools and multi-level governance models. She extensively coordinates major national and European frameworks (PNRR, LIFE, Erasmus+, INTERREG) focused on climate-adaptive urban regeneration, bridging the gap between advanced environmental data and operational land-use regulations.

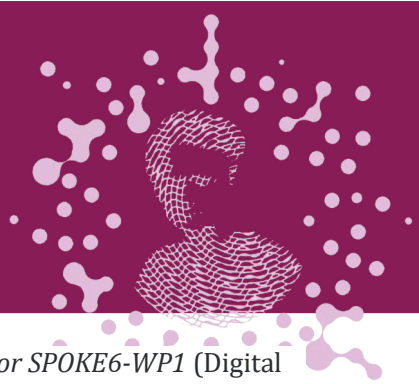
Total number of publications: > 70 scientific publications (indexed in Scopus, WoS) + Open Access Datasets.
ORCID link:https://orcid.org/0000-0003-3630-579X

5 of the most significant/recent publications (Urban Planning focus):

1. **D'Onofrio, R.**, Caprari, G., Cocci Grifoni, R., Conti, F., Marchesani, G.E., Malavolta, S., Pierantoni, I., & Sargolini, M. (2025). *Climate Maps and Urban Planning in Search of a Reliable Framework for Adapting Cities and Communities to the Impacts of Climate Change*. In: Geographic Approaches to Climate Change and Mitigation (Vol. 1). Springer, Cham. DOI: 10.1007/978-3-031-92119-3_5.
2. **Cocci Grifoni, R., & D'Onofrio, R. et al.** *(2025). "Minimum Urban Units (MUUs) offer a promising approach for adaptive urban planning". In: Society 5.0 5th International Conference. Springer. DOI: 10.1007/978-3-032-15463-7_7).*
3. **D'Onofrio, R.**, Brownlee, T.D., Camaioni, C., Cecchi, J., Cocci Grifoni, R., Malavolta, S., & Marchesani, G.E. (2025). *Multilevel governance approach to adaptation. The construction of the Italian mid-Adriatic green infrastructure*. TeMA - Journal of Land Use, Mobility and Environment.
4. **D'Onofrio, R.** (2023). *Urban planning and urban health: attempts at innovation in line with local planning tools*. European Planning Studies. DOI: 10.1080/09654313.2023.2210628.
5. **D' Onofrio R.**, Trusiani E. (2018), Urban Planning for Healthy European Cities, Springer briefs in Geography. Springer ISBN 978-3-319-71143-0. https://doi.org/10.1007/978-3-319-71144-7,

   Gewerbestrasse 11, 6330 Cham, Switzerland

List of funded projects and awards (Selection):



- **PNRR Ecosistema dell'Innovazione "VITALITY"** (2022-2025) – *Coordinator SPOKE6-WP1* (Digital and green transition of living environments).
- **LIFE20 CCA/IT/001752 "Life + A_GreeNet"** (2021-2025) – *Scientific Coordinator & Local Manager* (Focus on green infrastructures in coastal municipalities).
- **Erasmus+ "Cli-CC.HE"** (2022-2024) – *Project Manager* (Educational methodologies for climate equity in urban regeneration).
- **INTERREG ITALY-CROATIA "CRESCO"** (2024-2026) – *Local Manager* (AdriaClimate - RESiliEnt COastal planning in Adriatic).
- **INTERREG V-A Italy-Croatia "Joint_SECAP"** (2019-2021) – *Principal Investigator* (Joint Strategies for Climate Change Adaptation in coastal areas).

Contacts:

- Email: rosalba.donofrio@unicam.it
- Address: V.le della Rimembranza snc, Scuola di Architettura e Design - UNICAM, Ascoli Piceno, 63100, ITALY

2. Research Group and Facilities

Laboratory & Facilities:
The research will be hosted at the School of Architecture and Design (SAAD) in Ascoli Piceno. The fellow will have access to advanced spatial planning and environmental evaluation facilities. Equipment includes GIS-based platforms for multi-dimensional spatial analysis and the **i-Tree Eco software suite** (for quantifying urban forest benefits and ecosystem services). The research environment supports multi-scalar urban diagnostics using "Representative Day" climate scenarios and dynamic Decision Support Systems (DSS), providing the necessary tools to translate microclimatic vulnerabilities into actionable urban design and zoning guidelines.

Research Network:
The group boasts a highly active European and inter-regional network centered on territorial governance and spatial policies. Beyond academic partnerships (Cyprus Institute, ISCTE Lisbon, Erasmus Univ. Rotterdam), the network is deeply rooted in local administrations. It includes the "Adriatic Climate Urban Network", regional planning authorities , and local stakeholders. The group actively implements Quintuple Helix governance models to co-design climate-proof spatial plans, Green Plans, and to update municipal urban regulations.

3. Research Thematic Area/Project Idea

Title of the project:
Spatial Planning for Urban Health: Innovating Local Land-Use Tools through Minimum Urban Units and Green Infrastructure

Macroarea:

- **MSCA Panel:** SOC (Social Sciences and Humanities) / ENV (Environmental and Geosciences)
- **Keywords:** Spatial Planning, Urban Health, Land-Use Planning, Climate Change Adaptation, Minimum Urban Units (MUUs), Green Infrastructure, Municipal Masterplans, Nature-based Solutions (NbS).

Project Overview:
The project addresses the critical challenge of translating advanced microclimatic and environmental data into binding, operational local urban planning tools. Traditional functional zoning is increasingly inadequate to handle the complex spatial and social impacts of climate change on population health. This research aims to innovate local land-use planning by operationalizing the concept of **Minimum Urban Units (MUUs)** and **Climate Adaptive Urban Units (CAUUs)**—spatial clusters that integrate urban morphology, land cover, meteorological data, and socio-health indicators.By embedding these units within a Decision Support System (DSS) tailored for public administrations, the project will develop new urban design guidelines and performance-based metrics. The ultimate goal is to provide planners and policymakers with a reliable methodological framework to systematically integrate Green Infrastructure and Nature-Based Solutions (NbS) directly into **spatial planning** and **SECAPs**, thereby shifting urban planning from rigid zoning to dynamic, climate-proof, and health-oriented spatial governance.

4. Candidate and Career Plan

Expected background of the candidate:
The candidate should hold a PhD in Urban Planning, Spatial Planning, Urban Geography, or related fields. A strong foundation in local planning instruments, land-use policies, and climate change adaptation strategies is essential. Proficiency in GIS and spatial data analysis is required. Familiarity with integrating environmental evaluation tools (e.g., assessing ecosystem services) into regulatory frameworks and participatory planning processes will be highly valued.

Competences and knowledge to be developed by the candidate:

- **Scientific & Technical Skills:** Mastery of cutting-edge multi-dimensional spatial diagnostic methodologies, transitioning from descriptive Local Climate Zones (LCZ) to prescriptive Climate Adaptive Urban Units (CAUU). Competence in integrating environmental evaluation software (e.g., i-Tree Eco) into spatial planning procedures.
- **Policy & Applied Skills:** Translating complex socio-technical models into actionable spatial planning regulations and performance-based zoning (e.g., Green Plans, Joint SECAPs, Municipal Masterplans); navigating multi-level governance and the Italian/European regulatory frameworks for urban resilience.
- **Transferable Skills:** Managing participatory action-research for urban regeneration; co-designing planning tools with local authorities and stakeholders; utilizing open-science data management and strategic communication to influence local policy-making.