



International Conference
Nature for Sustainable Cities:
Planning Cost-Effective and Just Solutions for Urban Issues

University of Naples Federico II
Department of Architecture (DIARC)
Palazzo Gravina, Via Monteoliveto 3, Naples

26-27 February 2026

PROGRAM

PRESENTATION

The International Conference “Nature for Sustainable Cities: Planning Cost-Effective and Just Solutions for Urban Issues (NATSOLIS)” will explore the complex relationship between Nature-based Solutions (NBS) and urban and regional planning, addressing both their transformative potential and the challenges that arise when they are implemented in different territorial and socio-economic contexts. Building on recent international debates, the conference will examine how NBS contribute to urban regeneration, climate adaptation, risk mitigation, biodiversity enhancement, and improved environmental quality. At the same time, it will critically assess emerging concerns related to spatial justice, unequal access to NBS, green gentrification, and potential enhancement of existing socio-spatial inequalities.

A key focus will be placed on the assessment of positive and negative impacts of NBS, including the need for robust, spatially sensitive, and context-specific methodologies for evaluating ecological, social, and economic outcomes. Contributions addressing innovative approaches for mapping, modelling, and analysing the spatial distribution of NBS benefits – as well as identifying trade-offs, externalities, and unintended consequences – are strongly encouraged.

The conference also aims to explore governance models, participatory processes, and co-creation practices that can support equitable and effective NBS-oriented planning. By integrating theoretical insights, methodological advancements, and practical applications, NATSOLIS intends to foster a deeper understanding of how NBS can be designed, evaluated, and implemented to support inclusive and resilient urban regeneration. Trans-disciplinary contributions highlighting successful (and/or unsuccessful) cases are particularly welcome, helping to advance NBS as tools for context-aware, evidence-based, and problem-solving approaches.

SCIENTIFIC COMMITTEE

Daniele La Rosa (Università di Catania),
Marialuce Stanganelli (Università di
Napoli Federico II), Michele Grimaldi
(Università di Salerno), Francesca Torrieri
(Politecnico di Milano)

ORGANIZING COMMITTEE

*Università di Napoli Federico II, Dipartimento
di Architettura*

Marialuce Stanganelli, Carlo Gerundo

*Università di Catania, Dipartimento di
Ingegneria Civile e Architettura*

Daniele La Rosa, Viviana Pappalardo,
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Sipala

*Università di Salerno, Dipartimento di
Ingegneria Civile*

Michele Grimaldi, Alessandra Marra

*Politecnico di Milano, Dipartimento di
Architettura, ingegneria delle costruzioni e
ambiente costruito*

Francesca Torrieri

KEYNOTE SPEAKERS



Prof. Silvana Di Sabatino
Alma Mater Studiorum University of Bologna

Silvana Di Sabatino is Full Professor of Atmospheric Physics at the Alma Mater Studiorum University of Bologna and Coordinator of the PhD Programme “Future of the Earth, Climate Change and Societal Challenges”. Her research focuses on boundary-layer meteorology, urban microclimate, air pollution dispersion, and the physical processes underpinning weather and climate models. After completing her PhD in Environmental Fluid Mechanics at the University of Cambridge, she developed extensive international experience through experimental campaigns and modelling studies on urban heat island dynamics and atmospheric turbulence. She has coordinated major European research projects under the Horizon Europe (ALBATROSS and TRIGGER) and Horizon 2020 (OPERANDUM and I-CHANGE) programmes. These projects advanced physics-based approaches to climate adaptation and promoted the implementation of Nature-Based Solutions (NBS) for environmental risk reduction, urban resilience, and citizen engagement in climate action. Her work integrates field observations, multi-scale numerical modelling, and decision-support tools, contributing to the scientific assessment of NBS effectiveness in mitigating heat stress and improving urban environmental quality.



Prof. Weiqi Zhou
**Research Center for Eco-Environmental Sciences,
Chinese Academy of Sciences**

Dr. Weiqi Zhou is a professor of urban ecology, and deputy director of the State Key Laboratory of Regional and Urban Ecology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences. He is also the director of the Beijing Urban Ecosystem Research Station, a station focusing on long-term urban ecological research. Dr. Zhou is broadly interested in spatial heterogeneity of the landscape. He integrates field observations, remote sensing and modeling to understand the structure of urban socio-ecological systems, and its link to ecological function. He also works closely with practitioners and policy makers to help cities like Beijing and Shenzhen accomplish sustainable urban transformations. He serves as the Co-Editor-in-Chief for Landscape and Urban Planning, the Vice President of the International Association of Landscape Ecology, and the Secretary-general of the Ecological Society of China.

PROGRAM - 2026 FEBRUARY 26

February 26th - AFTERNOON (Room 18 - second floor)
Department of Architecture University of Naples Federico II
Palazzo Gravina, Via Monteoliveto 3, Naples (Italy)

Greetings and Conference Opening

Keynote Speech 14:45 – 15:30

Prof. Silvana Di Sabatino

University of Bologna

"On the role of NBS in risk mitigation under climatic change conditions"

SESSION 1

NBS AND MODELLING FOR CLIMATE ADAPTATION, RISK REDUCTION AND URBAN RESILIENCE

CHAIR
MICHELE GRIMALDI

Session 1A – 15:45 – 17:00

The mitigation of the UHI phenomenon through Urban Green Spaces: A methodological proposal based on the InVEST mode

[Alessandra Marra \(University of Salerno\)](#), [Gerardo D'Elia](#), [Francesco Caiazzo](#), [Michele Grimaldi](#)

Assessment of Nature-based Solutions Scenarios to Improve Access to Heat-Mitigating Parks: The Case of Karşıyaka, İzmir

[Çiğdem Coşkun Hepcan](#), [Aybüke Cangüzel](#),

[Ahsen Tuğçe Yüksel Ekin](#), [Şerif Hepcan \(Ege University\)](#), [Cristian Ioja](#), [Jurgen Breuste](#)

What-if scenarios to support multi-hazard impacts reduction through the implementation of Nature-based Solutions

[Maria Fabrizia Clemente \(University of Naples Federico II\)](#), [Valeria D'Ambrosio](#), [Ferdinando Di Martino](#),

[Vittorio Miraglia \(University of Naples Federico II\)](#), [Luca Cozzolino](#), [Nathalia Napolano](#), [Giada Varra](#)

Urban Green Responsiveness as a Tool for Climate Adaptation and NBS Planning

[Vittorio Miraglia \(University of Naples Federico II\)](#), [Ferdinando Di Martino](#), [Barbara Cardone](#),

[Enza Tersigni \(University of Naples Federico II\)](#)

Nature-based Solutions for heat mitigation in Old Towns: a spatial modeling approach in public open spaces

[Giulia Jelo \(University of Catania\)](#), [Riccardo Privitera](#), [Daniele La Rosa](#)

Coffee Break – 17:00 – 17:15

Session 1B – 17:15–18:45

Multidimensional Benefits of Integrating Nature-Based Solutions and Photovoltaic Systems in Residential Urban Regeneration

[Valeria D'Ambrosio](#), [Enza Tersigni \(University of Naples Federico II\)](#), [Sara Verde](#)

Rethinking Nature in Nature-Based Solutions: A Thermodynamic Paradigm for Planning in and Beyond the Anthropocene

[Raffaele Pelorosso \(Tuscia University\)](#)

The impact of noise on environmental quality: critical profiles in the real estate market

[Maria Macchiaroli](#), [Luigi Dolores \(University of Salerno\)](#), [Federica Cicalese](#)

Implementing Nature-Based Solutions through GIS and Climate Change Risk Assessment: the Case Study of the Emilia-Romagna Coastal System

[Elena Dorato](#), [Romeo Farinella](#), [Alberto Grandi \(University of Ferrara\)](#), [Alessandra Marin](#),
[Richard Peragine](#)

Evaluation of the Environmental Sustainability of Phragmites Australis as a Building Material through LCA

[Gabriele Campadello \(University of Perugia\)](#), [Luisa Paolotti](#), [Francesco Romagnoli](#), [Antonio Boggia](#)

Green AI for NBS-oriented urban planning: The Taranto case

[Maria Rosaria](#), [Stufano Melone](#), [Domenico Camarda \(Polytechnic University of Bari\)](#)

Sensor-Based Assessment of Urban Green Spaces: Air Quality Monitoring and Planning Implications in Segrate (Italy)

Andrea Codini, [Roberto De Lotto \(University of Pavia\)](#), Caterina Pietra, Matilde Sessi, Elisabetta Venco

Dinner at "Trattoria Medina" 20:00

Via Medina, 32

PROGRAM - 2026 FEBRUARY 27

February 27th - MORNING (Room 18 - second floor)

Department of Architecture University of Naples Federico II
Palazzo Gravina, Via Monteoliveto 3, Naples (Italy)

Keynote Speech 09:00 - 09:45

Prof. Weiqi Zhou

Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

"Urban trees for heat mitigation and adaptation: A social ecological perspective"

SESSION 1

**NBS AND
MODELLING FOR
CLIMATE
ADAPTATION,
RISK REDUCTION
AND URBAN
RESILIENCE**

CHAIR

FRANCESCA TORRIERI

Session 1C - 09:45 - 11:00

Resilient Waterscapes: integrating Nature-based Solutions and River Contracts for the regeneration of Pescara's urban area

Valentina Tomei, [Federico Falasca \(University of L'Aquila\)](#), Alessandro Marucci

Performance-Based Planning of Nature-Based Solutions: Insights from a Mediterranean Detention Roof

[Raffaele Pelorosso \(Tuscia University\)](#), Andrea Petroselli, Andrea Colantoni, [Ciro Apollonio](#), Flavia Tauro, [Francesco Cappelli](#), [Salvatore Grimaldi](#)

Financial and economic profiles in the enhancement of environmental emergencies: the case of marsh and lagoon areas

[Maria Macchiaroli](#), [Luigi Dolores \(University of Salerno\)](#), [Gianluigi De Mare](#)

Putting a price on urban nature. An investment model for nature-based solutions in cities

[Riccardo Privitera \(University of Catania\)](#), [Jing Ma](#)

Nature for Sustainable Cities - Evaluating Urban Nature-Based Solution Intervention Scenarios through a Spatial Economic Model

[Francesca Torrieri \(Polytechnic of Milan\)](#), [Mariacristina Sipala \(University of Catania\)](#), [Daniele La Rosa](#), [Alessia Crisopulli](#), [Viviana Pappalardo](#)

Coffee Break - 11:00 - 11:15

SESSION 2

**NBS IN URBAN
PLANNING
AND DESIGN**

CHAIR

CARLO GERUNDO

Session 2A - 11:15 - 13:00

Nature for Sustainable Cities - An integrated methodology for NBS planning at urban scale

[Daniele La Rosa](#), [Marialuce Stanganelli](#), [Michele Grimaldi](#), [Francesca Torrieri](#), [Viviana Pappalardo](#), [Carlo Gerundo](#), [Alessandra Marra](#)

Nature for Sustainable Cities - NBS scenarios' evaluation

[Daniele La Rosa](#), [Marialuce Stanganelli](#), [Michele Grimaldi](#), [Francesca Torrieri](#), [Viviana Pappalardo](#), [Carlo Gerundo](#), [Alessandra Marra](#)

Policy innovation for implementing NBS through the current planning system: design guidelines for Transformation Areas along Green and Blue Infrastructures in the Somma Vesuviana (NA) PUC

[Anna Terracciano \(University of Naples Federico II\)](#), [Francesco S. Sammarco](#), [Fiorella Guercia](#)

Green Infrastructure and ecological connectivity in spatial planning. A multi-scale scenario-based assessment model

[Alessandra Marra \(University of Salerno\)](#), [Michele Grimaldi](#), [Isidoro Fasolino](#)

An Integrated Ecosystem Assessment Framework for Just Nature-based Solutions in Urban Planning

[Jarumi Kato-Huerta \(University of Trento\)](#), [Davide Geneletti](#)

Planning street experiments for resilient and equitable urban mobility spaces: the case study of Oltretorrente, Parma

[Ilaria De Noia \(University of Parma\)](#), [Barbara Caselli](#), [Silvia Rossetti](#), [Michele Zazzi](#)

Municipal planning with green infrastructure: nature-based implementation mechanisms

[Luca Barbarossa \(University of Catania\)](#), [Viviana Pappalardo](#)

Lunch- 13:00 - 14:00

SESSION 2

NBS IN URBAN PLANNING AND DESIGN

CHAIR

CARLO GERUNDO

February 27th - AFTERNOON Session 2B - 14:00- 14:30

From Fragments to Systems: Planning Ecological Corridors in a Low-Density Urban Landscape

[Chiara Anselmi \(University of Pisa\)](#), [Federica Deri \(University of Pisa\)](#), [Simone Rusci](#)

GIS-based design of a municipal ecological network and quantification of NbS benefits through ecosystem services: the case of Guardiaregia (CB)

[Cipriano Cerullo \(University of Campania "L. Vanvitelli"\)](#), [Salvatore Losco](#)

SESSION 3

PARTICIPATION AND NARRATIVES FOR URBAN NATURE REGENERATION

CHAIR

VIVIANA PAPPALARDO

Session 3A 14:30 - 15:45

Beyond Greenery: Strategic Integration of Nature-based Solutions for Climate Resilience and Spatial Justice

[Francesca Mazza](#)

Spontaneous vegetation and spatial justice: design practices for rethinking NBS

[Martina Solli \(University of Naples Federico II\)](#)

Football-led urban regeneration in Rome: greening narratives, neglected woodlands, and speculative interests

[Stefano Quaglia \(Politecnico of Milan\)](#)

Proposals for the Territorial and Environmental Regeneration of the Metropolitan Area Northwest of Naples

[Emanuela Coppola \(University of Naples Federico II\)](#), [Massimo Tedesco](#), [Vincenzo Testa](#)

Plant Awareness and Human Wellbeing Perception in Urban Areas

[Irene Chinaglia](#), [Angelino Carta](#)

Coffee Break - 15:45 - 16:00

CHAIR

ALESSANDRA MARRA

Session 3B 16:00 - 17:30

Participatory Planning for Nature-Based Solutions in Complex Socio-Ecological Systems: Insights from Lake Vico

[Chiara Iavarone](#), [Raffaele Pelorosso](#), [Giulia Mancini \(Tuscia University\)](#), [Perla Rivadeneyra](#), [Federico Cornacchia](#), [Sebastian Raimondo](#), [Fabio Recanatesi](#), [Carlo Giupponi](#), [Maria Nicolina Ripa](#)

From Technical Practice to Territorial Transformation: NbS as a tool for participatory and transformative dialogue

[Marica Castigliano](#), [Anna Attademo](#), [Maria Simioli \(University of Naples Federico II\)](#), [Bruna Vendemmia](#), [Federica Vingelli](#)

Co-Design for Nature-Based Oriented Tourism Development: a Participatory GeoDesign based Approach in the Pollino National Park

[Rachele Vanessa Gatto](#), [Simone Corrado](#), [Francesco Scorza \(University of Basilicata\)](#)

Co-creation and Circular Transitions in City-Port Areas

[Libera Amenta](#), [Nicola Fierro \(University of Naples Federico II\)](#)

Research perspectives and initial findings of the Rural Naples project

[Simona Panaro \(University of Naples Federico II\)](#), [Federica Russillo](#)

Between Governance and Design: multi-scale approaches for enhancing biodiversity in cities

[Giulio Hasanaj](#), [Giuseppe De Luca \(University of Florence\)](#)

Enhancing awareness of nature's role to improve liveability and conservation of World Heritage Sites: insights from the B_GREEN Project

[Marialuce Stanganelli \(University of Naples Federico II\)](#)

Discussion and Closing Remarks 17:30 - 18:00

CONFERENCE VENUE

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