



SUMMER SCHOOL WORKSHOP ACTION 2020-2-21: COPERNICUS FOR CULTURAL HERITAGE

The Copernicus for Cultural Heritage Summer School Workshops provided already three workshops in 2023 located at Limassol (Cyprus), Rome (Italy), and Oberpfaffenhofen near Munich (Germany). They are organized by the Cyprus University of Technology (CUT), ISPRA (the Italian Institute for Environmental Protection and Research), and the DLR (German Aerospace Center). In 2025 there will be two additional CH-Summer-Schools:

- 18.-20.6. at ISPRA in Rome, Italy
- 15.-17.7. at DLR in Oberpfaffenhofen

Each workshop targets local and regional experts, archaeologists and decision makers, authorities, companies, researchers and students providing training and exchange on usage of Copernicus data for Cultural Heritage monitoring and preservation. Each of the workshops will include two days of lectures, presentations of experts and showcases by participants, exercises and hands-on-trainings, and one day of visits to cultural heritage sites. The participants are invited to share their experience and showcases where they already use satellite or remote sensing data or work which may gain additional value using satellite data.

The workshops will include lectures and presentations as well as in-situ activities that utilize easy-to-use, web-based, remote-sensing software. The lecture material and relevant case studies will be developed by experts in the field of Cultural Heritage and Earth observation. As well, various case studies of how Copernicus data has been used for cultural heritage applications will be discussed, to facilitate knowledge transfer. Each partner will travel and participate in the workshops to provide case studies and applications at the national level.

VENUE: ROMA - sede del Parco Regionale dell'Appia
Ex Cartiera Latina Via Appia Antica, 42, 00179 Roma

DATE: FROM 18 TO 20 JUNE 2025

NUMBER OF PARTICIPANTS: ATTENDANCE IS FREE OF CHARGE AND LIMITED IN NUMBER OF PARTICIPANTS ON A FIRST COME FIRST SERVED BASIS. ATTENDEES ARE RESPONSIBLE FOR THEIR OWN TRAVEL AND ACCOMMODATION ARRANGEMENTS AND PAYMENT

**SCIENTIFIC AND TECHNICAL COMMITTEE
AND SECRETARIAT ISPRA:**

D. Spizzichino, F. Ferrigno, G. Leoni, F. Menniti, R. Pompili

18.06.2025 | 14:00 - 17:30

AFTERNOON: CCHTG Copernicus Cultural Heritage Technical Group

CHAIRMAN: Daniele Spizzichino

- 14:30 *Institutional Welcomes*
E. Guarnieri
(Director - Appia Antica Regional Park)
- 14:45 *Welcome introduction and Action and school presentation*
D. Spizzichino (ISPRA)
- 15:00 *Copernicus User Forum Thematic Hub evolution*
A. Taramelli (IUSS PAVIA - ISPRA)
- 15:20 *Multi and Hyper spectral application NCH area*
K. Themistocleus (CUT) *
- 15:40 *Hyperspectral Remote Sensing, Basic Principles & Applications to Cultural Heritage*
D. Cerra (DLR)
- 16:00 COFFEE BREAK**
- 16:30 *Assessing Earthquake Susceptibility Using GIS, Remote Sensing, and Integrated Decision Analysis in the Ancient Olympia Region*
S. Alatza, N. Stasinou (NOA) *
- 16:50 *Copernicus World Heritage Hub*
C. Solimini (EUSPA) *
- 17:05 *Copernicus Sentinel Data for the Detection of Archaeological Features and Monitor Archaeological Landscapes*
N. Masini (CNR-ISPAC) *
- 17:15 *Multitemporal Satellite Data in the Service of Cultural Heritage Preservation*
R. La Saponara (CNR-IMAA)
- 17:30 *Q&A and follow up*

19.06.2025 | 10:00 - 17:00

MORNING: Invited speaker experience at European level Towards the Copernicus European Thematic Hub on Cultural Heritage

CHAIRMAN: Federica Ferrigno

WELCOME COFFEE

- 10:30 *Copernicus user forum*
A. Taramelli (IUSS Pavia - ISPRA)
- 10:40 *Copernicus Climate Change and Atmosphere Monitoring Services supporting Cultural Heritage preservation*
C. Ananasso (Team Leader at ECMWF) *
- 11:00 *Copernicus Land Monitoring Service for cultural heritage*
L. Solari (EEA - Land Services) *
- 11:20 *How the Copernicus SESA Contributes to the Protection of Cultural Heritage*
R. Onori (SATCEN)

- 11:45 *Ground motion and CH*
F. Ferrigno/ F. Menniti (ISPRA)
- 12:00 *Coastal hazard affecting Cultural Heritage*
A. Bruschi, G. Leoni (ISPRA)
- 12:15 *Round table follow and Q&A*

13:00 LIGHT LUNCH AND NETWORKING

AFTERNOON: ICOMOS – ICORP and Blue shield session: Natural hazard and CH monitoring and protection in Climate change context and in conflict area

CHAIRMAN: **Claudio Margottini**

- 13:40 *Introduction and welcome speech*
- 14:00 *Attività di ICOMOS per la preparazione al rischio a salvaguardia del patrimonio culturale*
M. Di Stefano (Presidente ICOMOS)
- 14:20 *Remote sensing per la protezione del patrimonio internazionale in contesti complessi*
C. Margottini (ICOMOS, IAEG & UNESCO Chair)
- 15:00 *Conservation of Cultural Heritage in a Climate and Social Change Perspective*
E. Zendri (ICOMOS & Uni. Ca' Foscari Venezia)*
- 15:30 COFFEE BREAK
- 16:00 *Il Comitato Scudo Blu Italia*
A. Garlandini (Presidente Scudo Blu)*
- 16:20 *Fighting against illicit traffic as restoration of cultural heritage*
D. Savy (Blue Shield)*
- 17:00 *Q&A and follow Up*

20.06.2025 | 10:00 – 15:00

MORNING: Servizi satellitari dedicati al monitoraggio dei BBCC in un contesto di CC

CHAIRMAN: **Roberto Pompili**

WELCOME COFFEE

Thematic session Invited speaker experience at National and European level

- 10:00 *Multi-temporal Satellite Radar Interferometry for the assessment of manufacts and ground instability on some Italian cultural heritage urban sites*
Tofani V., Bianchini S. (UNESCO Chair- UNIFI)*
- 10:15 *Conserving modern architecture in a changing climate: open questions, available data and potential research directions*
S. Landi (Politecnico di Milano, ICOMOS)
- 10:30 *Sensing the past and the present: Ecosystem services in NCH sites. The C  n Gi   Biosphere Reserve*
E. Valentini, A. Nguyen Xuan (CNR/ISPRA)

- 10:45 *C3S and CAMS application for cultural heritage protection in a changing climate*
A. Bonazza (CNR ISAC)*

- 11:00 *Compound, Multi-hazard, and Cascading Events Impacts on Water Security and Communities*
F. Nardi (Univ Rome – UNESCO Chair FIU)

- 11:15 *The IRIDE products for the protection of the Italian Cultural Heritage*
A. Brunetti (Nhazca)

- 11:30 *Leveraging Satellite Radar for Safeguarding Historic Urban Fabrics*
J. Clementi (CERI-Sapienza)

- 11:45 *Blue-Sky Thinking: From Hackathon SPAZIO CULTURALE Youth Perspectives on the Future of Cultural Heritage with Copernicus CAMS and C3S*
M. D'Amen, A. Tornato, S. Mariani (ISPRA)

- 12:00 Q&A

12:30 LIGHT LUNCH AND NETWORKING

AFTERNOON: Monitoring and management of CH the Italian experiences and perspective

CHAIRMAN: **Gabriele Leoni**

- 14:00 *Introduction and welcome speech*
L'impiego dei dati satellitari per il patrimonio culturale: il Piano Straordinario di Monitoraggio presso l'Ufficio del Soprintendente Speciale del sisma 2016
C.Cenci, T. Mazzola (MiC)
- 14:15 *Il programma di monitoraggio del Parco archeologico dei Campi Flegrei*
F. Pagano, M. Salvatori *(PACF)
- 14:30 *L'interoperabilit   dei sistemi del MiC Carta del Rischio e Vincoli in rete per una conoscenza ragionata del rischio dei beni culturali*
C. Cacace, ME Corrado *(ISCR-MiC)
- 14:45 *Monitoraggio Multilivello finalizzato ad una programmazione consapevole della manutenzione: dal satellite alla diagnostica in campo: l'esperienza del Parco Archeologico di Pompei*
V. Calvanese (PAP)
- 15:00 *Summer school Conclusion*

(*) Intervento da remoto