



FPCUP Summer-School and Workshop Copernicus for Cultural Heritage

July 3.-6. 2023 Oberpfaffenhofen

Program and practical information

Welcome to the FPCUP Summer-School and Workshop “Copernicus for Cultural Heritage” at the German Aerospace Center (DLR) in Oberpfaffenhofen.

The Copernicus for Cultural Heritage Summer School Workshops provides three workshops over the summer of 2023 in Rome (Italy), Oberpfaffenhofen near Munich (Germany) and Limassol (Cyprus). They are organized by the Eratosthenes Center of Excellence (ECoE), ISPRA (the Italian Institute for Environmental Protection and Research), and the DLR (German Aerospace Center). The Summer School Workshops are funded by the EU in the frame of the project FPCUP (“Framework Partnership Agreement on Copernicus User Uptake”, Action 2020-2-21) which aims at enhancing the user uptake of Copernicus data and products.

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 about two to three days of lectures, presentations of experts and show-cases by participants, one or two days of in-situ activities, exercises and hands-on-trainings, and one day of visits to cultural heritage sites. The participants are invited to share their experience and show-cases where they already use satellite or remote sensing data or work which may gain additional value through the use of satellite data.

Attendance is free of charge and limited in number of participants on a first come first served basis. All coffee and lunch breaks in the program are paid for by DLR.

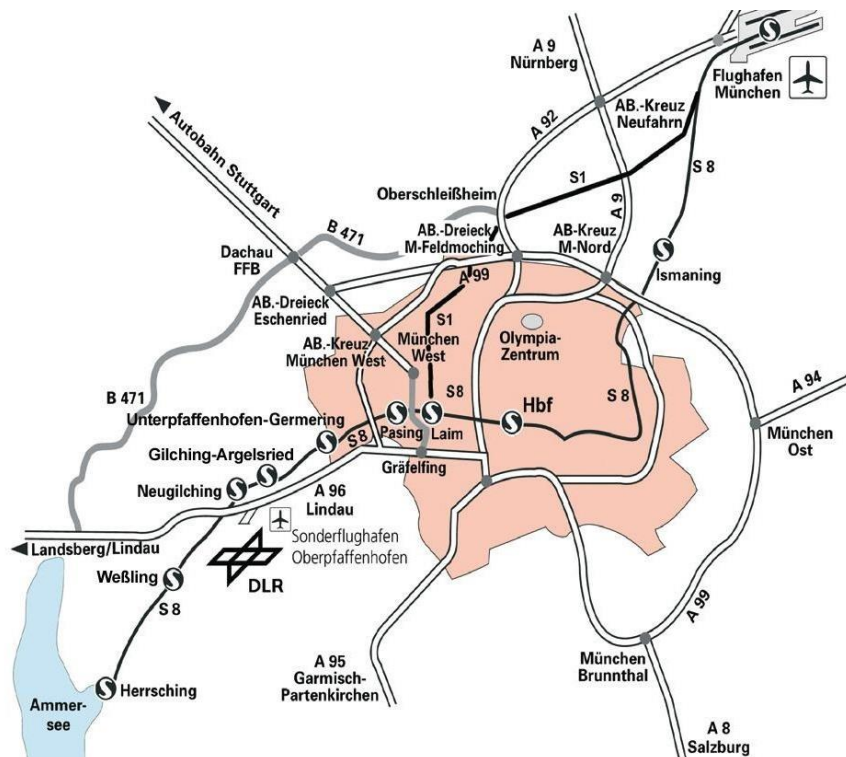
Attendees are responsible for their own travel and accommodation arrangements and payment.

Please find the program and practical information on the following pages.

Program at a glance

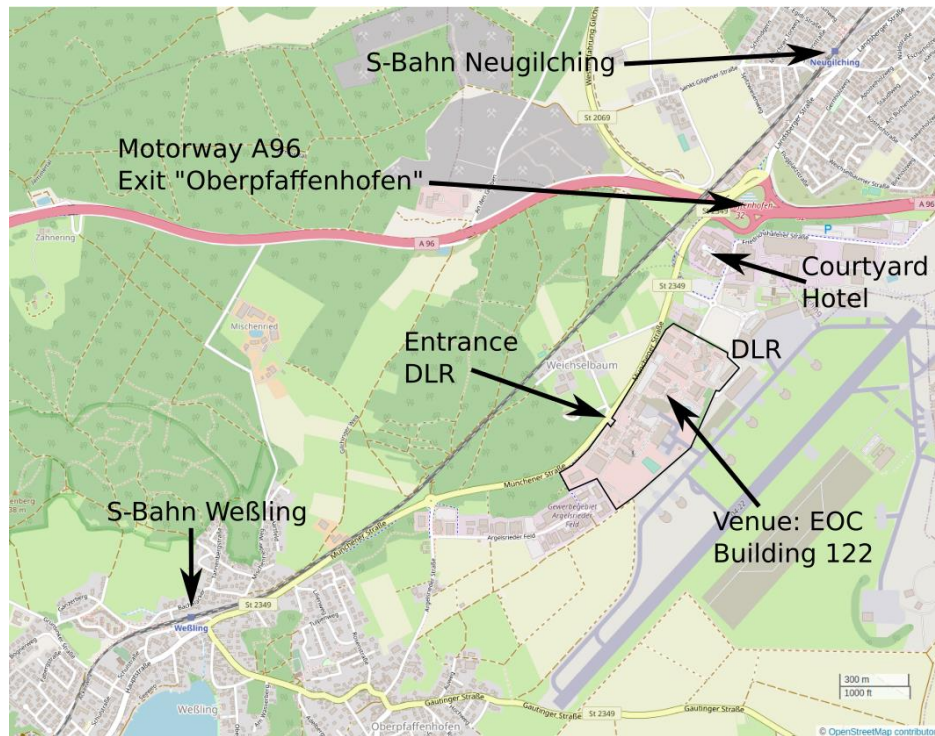
The workshop will be held from Monday, 3. July 2023, 13:30 until Wednesday 5. July 16:00 at the premises of DLR in Oberpfaffenhofen. All participants are invited on a bus tour to nearby cultural heritage sites on Thursday 6. July from 9:00 to 15:30.

Time	Monday, 3.7.	Tuesday, 4.7.	Wednesday 5.7.	Thursday 6.7.
09:00		Course Google Earth	Lectures	CH-Tour
09:30		Engine		
10:00		(bring own Laptop)		
10:30		Coffee Break	Coffee Break	- Church Unering
11:00		Coffee Break	Lectures	- Andechs Monastery
11:30		Lectures		- Small Lunch
12:00		User Presentations		- Roseninsel
12:30		Lunch Break	User Presentations	
13:00		Lunch Break	Lunch Break	
13:30	Welcome			
14:00	Lectures	DLR Facility Tour	Moderated Discussion	
14:30				Bus back to DLR
15:00	Coffee-Break		Coffee Break	end of event 15:30
15:30	Lectures		Summary	
16:00		DLR Summer Event		
16:30	User Presentations	(you are invited)		
17:00				
17:30	Ice-Breaker and			
18:00	Poster-Session			
18:30				
19:00				



Venue

The workshop is held at the premises of the German Aerospace Center (DLR), Münchener Straße 20, 82234 Weßling (Germany) in the Earth Observation Center (Building 122). The DLR site Oberpfaffenhofen site is approximately 25 kilometres west of Munich near the Munich-Lindau motorway (A96). You will have to register at the entrance – there will be a list of all participants.



By car: take the motorway A96 (Lindau – Munich), exit “Oberpfaffenhofen”. You may park at the entrance (“Besucherparkplatz”) or ask after registration at the entrance for parking inside DLR.

By plane: Arrive at Munich (MUC), take the S-Bahn train S1 or S8. The S8 goes directly from the airport to stations “Neugilching” or “Weßling” (see below “by train”), taking the S1 you have to change in Laim for the S8 to “Herrsching”. A taxi from the airport to DLR is about 80 €.

By train: Take the train to Munich main station (Hauptbahnhof), from there the S8 to “Neugilching” or “Weßling” (direction “Herrsching”). Both S-Bahn train stations are located about 30 min walk away from the DLR. There are no taxis at the train stations but some busses: bus 947 at 9:42, 10:42, 11:42, 12:42 from train station Neugilching and bus X910 at 10:07, 11:07, 12:07, 13:07 from train station Weßling. You may buy online-tickets at <https://www.mvv-muenchen.de/>. The single trip from Hauptbahnhof to DLR is 7,40 €, from airport 13 €, a full day-ticket 11 € (Hauptbahnhof-DLR, Zone M-2) or 14.80 € (airport-DLR, Zone M-5) respectively.

Accommodation

Nearby is the hotel Courtyard by Marriott which offers rooms at DLR rates of about 90 € (about 1 km walk), next hotels are Seehof in Weßling (about 3 km, bus or walk) or hotels Zur Post or Seehof in Herrsching (about 15 km, S-Bahn and bus). Please ask for DLR-rates when booking.

Detailed Program of the Workshop

Monday 3. July 2023; Building 122 (EOC) Room Newton & Einstein

13:00	Registration	
13:30	Welcome, structure of event and brief introduction of participants	Gunter Schreier, DLR
13:45	Overview of the Copernicus Program	Gunter Schreier, DLR
14:05	Cultural Heritage for Earth Observation in Cyprus	Kyriacos Themistocleous, ECoE
	3D digitization of cultural heritage using remote sensing	Kyriacos Themistocleous, ECoE
15:00	Coffee Break	
15:30	Lecture: Digital Surface Model Generation	Thomas Krauß, DLR
	User Application Presentations: the KERES project	
16:30	Kulturgüter vor Extremklimaereignissen schützen und Resilienz erhöhen (<i>Talk in English</i>)	Johanna Leissner, Fraunhofer ZV
	Application of climate data	Lola Kotova, Hereon Helmholtzzentrum
	IT-Lösungen für den Kulturgüterschutz (<i>Talk in English</i>)	Jürgen Moßgraber, Fraunhofer IOSB
17:30	Icebreaker and Poster presentations	
18:30	Adjourn of the day	

Tuesday 4. July 2023; Building 122 (EOC) Room Newton & Einstein

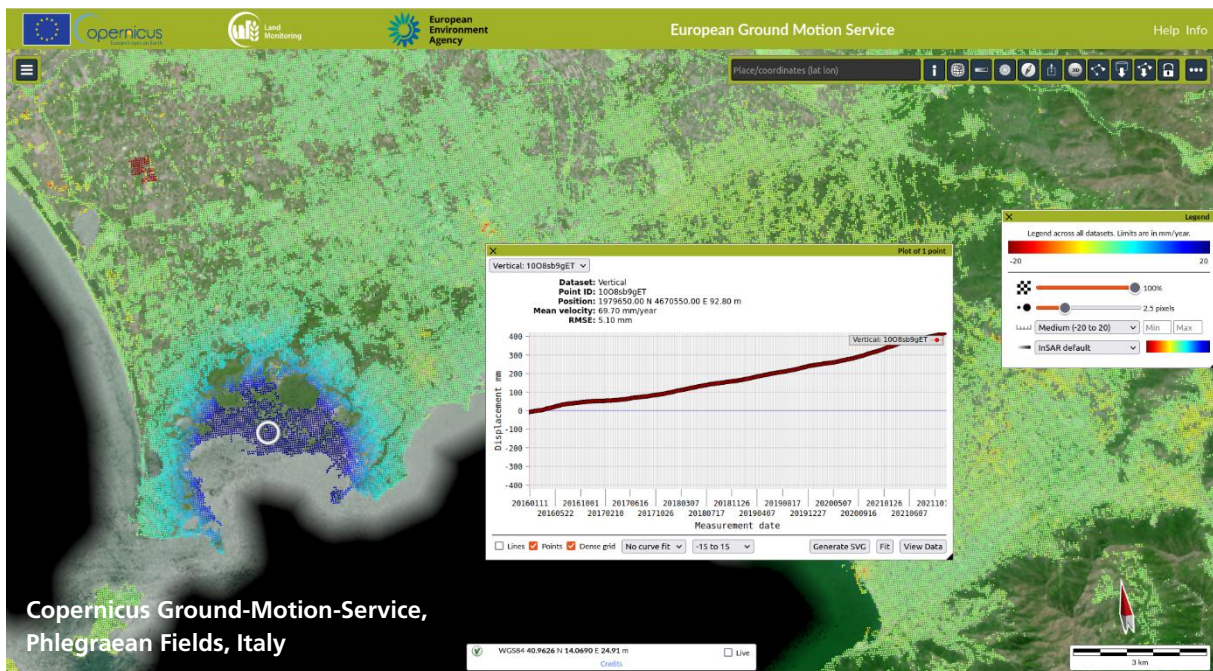
09:00	Lecture; mastering Google Earth Engine: practical course (<i>please bring your own laptop</i>)	Daniele Cerra, DLR
11:00	Coffee Break	
11:30	Status and results of the EnMAP Mission – introduction to hyperspectral EO (Earth Observation)	Emiliano Carmona, DLR
	User Application Presentations	
12:00	Virtual Research Environment of the Archaeological Site Uruk-Warka, Iraq	Max Haibt, DAI
	Funerary Landscapes in NW Arabia: Documentation and Preservation of Cultural Heritage	Arnulf Hausleiter, DAI
	Remote Sensing Support in the Aftermath of Climate-related Impacts on Archaeological Sites: Floods and Wildfires	Pouoria Marzban, DAI
13:00	Lunch Break	
13:40	The Center for satellite-based emergency Response, ZKI	Johanna Roll, DLR
14:00	DLR facility Tour; visiting research and operations facilities in Oberpfaffenhofen	
16:00	Participation at EOC Summer event (hosted by DLR for guests)	

Wednesday 5. July 2023; Building 122 (EOC) Room Newton & Einstein

09:00	Lecture: Introduction to SAR	Simon Plank, DLR
09:45	Lecture: InSAR and European Ground Motion Service (EGMS)	Ramon Brcic, DLR
10:30	Coffee Break	
11:00	SAR interferometry techniques applied on CH monitoring and protection	Daniele Spizzichino; Federica Ferrigno ISPRA
12:30	European Ground Motion Service (EGMS) for Multi-Scale Assessment of Historic Areas and Heritage	Rasoul Eskandari; POLIMI
12:45	The World Heritage Site Roseninsel in Lake Starnberg	Stefan Plattner, DLR
13:00	Lunch Break	
14:00	Moderated Discussion: needs and new developments for CH/Archaeology and EO	all Participants; moderator Gunter Schreier
15:00	Coffee Break	
15:30	Summary of Summer School, Lessons learned	
16:00	Adjourn for the day	

Thursday 6. July 2023

09:00	Start CH Site Tour with DLR bus at Entrance Gate of DLR in Oberpfaffenhofen	all participants registered to participate in the tour
	Bus tour visiting historical cultural sites (Unering, Andechs) and the World Heritage Site Roseninsel (in Lake Starnberg); quick lunch before taking the ferry to Roseninsel. Guided tour on Roseninsel	
Approx. 15:30	Bus return to DLR OP	





About FPCUP (Framework Partnership Agreement on Copernicus User Uptake)

With a total of 219 actions, the EU-funded project aims at enhancing the user uptake of Copernicus data and products. It started in July 2018 and aims at increasing the number of Copernicus users and applications derived from Copernicus data or products by different actions. The project is led by the German Aerospace Center (DLR Space Agency). 50 partners from 23 European countries are part of the consortium comprising a broad expertise on national and international Copernicus user uptake. You can find more details on the corresponding FPCUP website at <https://www.copernicus-user-uptake.eu/user-uptake/details/copernicus-for-cultural-heritage-summer-school-workshops-449>

DLR at a glance

DLR is the Federal Republic of Germany's research centre for aeronautics and space. We conduct research and development activities in the fields of aeronautics, space, energy, transport, security and digitalisation. The German Space Agency at DLR plans and implements the national space programme on behalf of the federal government. Two DLR project management agencies oversee funding programmes and support knowledge transfer. Climate, mobility and technology are changing globally. DLR uses the expertise of its 55 research institutes and facilities to develop solutions to these challenges. Our 10,000 employees share a mission – to explore Earth and space and develop technologies for a sustainable future. In doing so, DLR contributes to strengthening Germany's position as a prime location for research and industry.

Imprint

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For further questions contact us at FPCUP-CHSummerSchool2023@dlr.de