




Free short-term training for technical staff and scientists: 26.10.2023

Operation of large CSP facilities

Location	PROMES-CNRS, Font-Romeu Odeillo Via, France <i>On site presence recommended, possible remote attendance the morning for the presentations (indicate at registration).</i>	
Date	26th October 2023	
Target group	The course is designed for engineers, researchers and stakeholders from European CSP industry and companies who want to be trained on concentrated power measurements for CSP facilities: solar towers, furnaces, simulators...	
Objective	This course focuses on design, operation and maintenance of large CSP facilities, especially the heliostats field and core instruments: power, communication, software, mechanical... A full process oil and steam parabolic trough solar plant will also be presented. Optical measurements will be addressed through flux measurements. <i>The training consists of both theoretical and practical modules at solar furnaces and parabolic in order to get hand-on experience on sensors in real conditions. Topics can be adjusted toward CSP flux measurements depending on participants' requests.</i> <i>The training will include a visit at PROMES facilities in Odeillo.</i>	
Course language	English	
Trainers	Experts in charge of the solar facilities at PROMES-CNRS.	
Application	The registration deadline is October 9th, 2023 . Eligible candidates will be informed until October 15 th , 2023. 8-10 onsite participants at most.	
Fees	No course fee is applicable. Accommodation and travel costs shall be covered by the participants, including onsite lunch (~15 €, no credit card). Coffee breaks offered by PROMES-CNRS.	
Contact	Emmanuel Guillot (PROMES-CNRS) Tel.: +33 468307756 emmanuel.guillot@promes.cnrs.fr	
Registration	Free but mandatory. To apply, please fill out the application form found on SFERA III website (https://sfera3.sollab.eu/category/news/) and send it to: emmanuel.guillot@promes.cnrs.fr	
More Info	Host laboratory PROMES-CNRS: https://www.promes.cnrs.fr/ Supporting project SFERA-III: https://sfera3.sollab.eu/	



Agenda STT17 CSP facilities operation, PROMES-CNRS, 26.10.2023

09:00 – 09:15	<i>Welcome & group presentation</i>
09:15 – 10:00	Presentation of PROMES-CNRS and overview of current solar researches
10:00 – 10:30	Operation of PROMES-CNRS large solar facilities: solar tower Thémis, 1000 kW Odeillo's solar furnace, MicroSol'R parabolic trough
10:30 – 10:45	<i>Coffee break</i>
10:45 – 11:15	Overview of solar flux measurements: instruments, procedures and data processing
11:15 – 12:00	Visit of the Odeillo site: weather station, small and medium solar furnaces
12:00 – 13:30	<i>Lunch</i>
13:30 – 16:30	Technical visit and discussion of the Odeillo site: 1000 kW solar furnace heliostats field and control room, MicroSol'R trough plant
16:30 – 17:00	<i>Debriefing and conclusions</i>

Main trainers CV



Emmanuel GUILLOT, [ORCID 0000-0002-0552-0262](https://orcid.org/0000-0002-0552-0262), Research Engineer at CNRS, deputy director of PROMES laboratory since 2021, technical director and industrial relations manager of the Fr-Solaris large solar infrastructure since 2015, manager of the Solar Facilities and Associated Instruments Department of PROMES since 2006. He has 20 years of experience in the concentrated solar fields mostly concerning mechatronics developments (heliostats control, setups automation...) and radiative measurements (flux power, solar resource) and 30 years in software development, leading to more than 65 publications, 13 conferences, a dozen deliverables for European projects... He has participated or is participating to 2 European projects as main or deputy coordinator (Clé-de-Sol, Powder2Power), 3 as WP leader, 11 as researcher. At national level: 13 projects. In total: contribution to a dozen PhDs. He has been the scientific and technical coordinator of 15 industrial contracts, and hosted about 50 external research projects.



Nicolas Boulet, [Scopus 57194854147](https://scopus.org/57194854147), Study Engineer at CNRS, in charge of maintenance and mechanical development for all solar facilities. He started as a technician in 1999, then enlarged his fields of action while getting study engineer in 2018. As part as access European programs, he has handled the hosting of over 100+ teams, providing them with assistance in carrying out their experiments on the PROMES facilities. With more than 24 years of experience in the field of concentrating solar power, he is qualified in concentrating solar power experimentation, mechanical engineering and facility manager.

SFERA III: Solar Facilities for the European Research Area

<http://sfera3.sollab.eu/>

The EU-funded research project - SFERA III - aims to boost scientific collaboration among the leading European research institutions in solar concentrating systems, offering European research and industry access to the best research and test infrastructures and creating a virtual European laboratory. Grant agreement 823802, funded under H2020-INFRAIA-2018-1.



PROMES-CNRS, Odeillo's site venue

Centre Félix Trombe

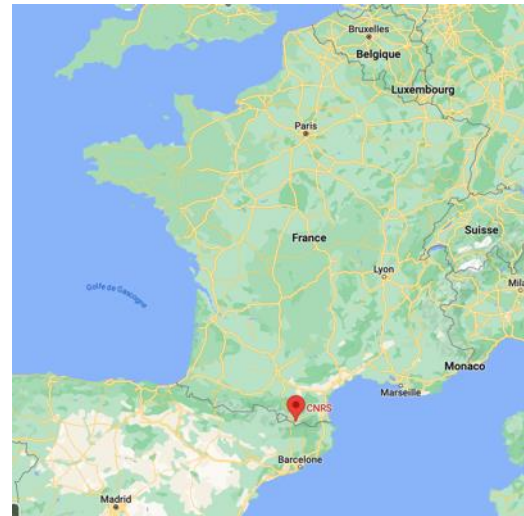
7 rue du Four Solaire

66120 Font Romeu Odeillo Via

France

42.4941 N, 2.0297 W

<https://goo.gl/maps/RReKD79oDuJoUeeK8>



Suggested routes to come to PROMES-CNRS Odeillo

- By Barcelona, Spain, by plane or train, then by rented car (or train possible to Puigcerda, Spain, then taxi to Font Romeu). Recommended path as Barcelona airport has more connecting flights.
- By Toulouse, France, by plane or train, then by rented car. Train possible to Latour de Carol, France, then booked taxi to Font Romeu. Recommended path by trains for CO₂ reduction.
- By Perpignan, France, by plane or train, then by rented car. Train possible to Font Romeu Odeillo Via, France, then booked taxi to hotel, however last train is touristic: nice mountains views but longer travel time...

Rented cars: from November to April, (at least December to March), ask for snow chains.

Accommodation

Various hotels and restaurants available in Font Romeu at all price levels, several within <15 minutes walking distance to the laboratory: [La Chouette](#), [L'Houstalet](#)** , [L'Insolite](#)**** ...



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