




Free short-term training for technical staff and scientists: 29.09.2023

Concentrated solar flux measurements

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	29th September 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 flux measurements: presentation and usage of water-calorimeters and radiometers, presentation and usage of camera and white targets, data processing to provide flux maps. <i>The training consists of both theoretical and practical modules at solar furnaces in order to get hand-on experience on sensors in real conditions. Topics can be adjusted toward CSP facility operation depending on participants' requests. The training will include a visit at PROMES facilities in Odeillo.</i>	
Course language	English	
Trainers	Experts in charge of flux measurement at PROMES-CNRS.	
Application	The registration deadline is September 11th, 2023 . Eligible candidates will be informed until September 18 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 STT16 Flux measurements, PROMES-CNRS, 29.09.2023

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 – 10:15	Presentation of PROMES-CNRS solar facilities: main characteristics and simplified operation description
10:15 – 10:30	<i>Coffee break</i>
10:30 – 11:15	Flux measurements at the small solar furnaces: instruments, procedures and data processing
11:15 – 12:00	Visit of the Odeillo site: weather station, outside solar facilities
12:00 – 13:30	<i>Lunch</i>
13:30 – 16:30	Training with the flux measurements equipment with the solar furnaces: water calorimeter and radiometer // flux camera system // data processing
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.



Anita Haeussler, [ORCID 0000-0001-7302-7982](https://orcid.org/0000-0001-7302-7982), Research Engineer at CNRS, in charge of flux measurements for the small and medium scale solar facilities. She completed a thesis in thermochemistry at the laboratory. Since 2021, she has been a research engineer in the PROMES solar installations and associated instruments department. As part as SFERA-III access, she has handled the hosting of over 35 teams, providing them with assistance in carrying out their experiments on the PROMES facilities. With more than 5 years of experience in the field of

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.



concentrating solar power, she is qualified in concentrating solar power experimentation and fluxmetry, which has resulted in 17 scientific publications.

PROMES-CNRS, Odeillo's site venue

Centre Félix Trombe

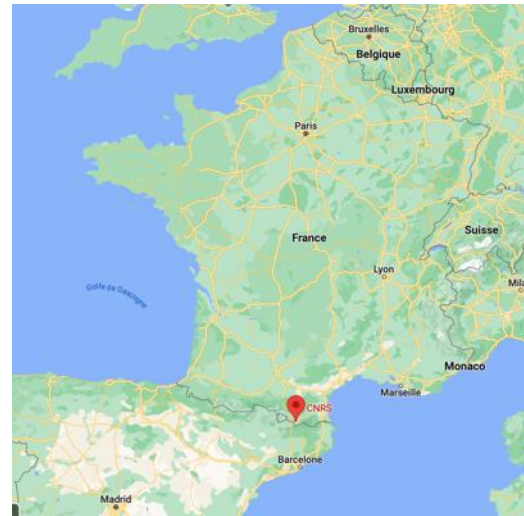
7 rue du Four Solaire

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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