

# Summer school 2024 – July 15-19

Centre international de Valbonne (CIV), 190 rue Frédéric Mistral, F-06560 Valbonne

Theme: observational astronomy and data processing



*Don't forget to read the practical information at the end of the document!*

## Program (final version 2024-07-03)

Planning Summer school MASS 2024																		
	08:30	10:00	10:30	11:00	12:00	14:00	16:00	18:00	17:00	18:30	19:30	21:00	21:30	22:30	23:00	23:30	01:00	02:00
Monday 15/07	Bus to Calern Valrose 10:00		Calern visit (lunch @Calern)			Bus to Valbonne Installation @CIV			Social dinner	School pres. (EA)	Telescope pres., remote observations (PHB/CS)							
Tuesday 16/07	Course detectors (MT)		Lunch	Course spectro (FT)	Course photom, (OS/PhB)	Dinner		Observations + hands-on (PHB/CS/EA/OJC/CMMA/FS)										
Wed 17/07			Lunch	Course clusters photom (LM)	hands-on clusters, data proc (LM, all)	Dinner		Observations + hands-on (PHB/CS/EA/AM/CM/MA/FS)										
Thursday 18/07			Lunch	Course VO & GAM (OJC)	Data reduction (all)	Dinner		Master thesis presentations (OJC)			Observations with 40cm telescope (PSTJ)							
Friday 19/07	9:30 Bus to Nice (arrival Nice – 11am)																	

### Monday 15: Calern observatory Visit

- 10:00 bus departure to Calern (from Parc Valrose, 28 av. Valrose, Nice, <https://maps.app.goo.gl/qSjhxncxUcinQ3A16> ).
- 12:00 Lunch @Calern (buffet)
- 14 :00 : Visit of the observatory, small groups
- 17:00 : bus leaves for Valbonne
- 19:30 : Social Dinner at the restaurant-pizzeria El Ciro
- 21:30 – 0:00 : Presentation of C2PU telescopes<sup>[2]</sup>, remote connexion to Calern and observations

### Tuesday 16 :

- Breakfast (7:30 to 9:00)
- 10:30-12:00 Course on detectors and noises (MT)<sup>[2]</sup>
- 12:00 : Lunch
- 14:00-16:00 : Course on spectroscopy (FT) <sup>[2]</sup>
- 16:30-18:30 : Course on photometry and introduction to AIJ software (OS/PhB) <sup>[2]</sup>

- 19:00 : Dinner + free time
- 22h-0h : split in 4 groups of 8-9 students
  - o Gr A : Observations @Omicron tel., photometry/imagery (PhB/OS)
  - o Gr B : Observations @Epsilon tel., spectroscopy (EA/AM)
  - o Gr C+D : hands-on data processing on photometry using archive data (OLC/MA/CM/FS)
- 0h-2h : idem (gr A/B swap with C/D).

### Wednesday 17 :

- 12:00 : Lunch (no activities in the morning, no breakfast)
- 14:00-16:00 : Course color magnitude diagrams of clusters (LM) <sup>[2]</sup>
- 16:30-18:30 : hands-on CMD of clusters (LM) + data processing
- 19:00 : Dinner + free time
- 22h-0h : split in 4 groups of 8-9 students
  - o Gr D : Observations @Omicron, photometry/imagery (PhB/OS)
  - o Gr C : Observations @Epsilon, spectroscopy (EA)
  - o Gr A+B : hands on data processing on spectroscopy (AM/MA/CM/FS)
- 0h-2h : idem (gr A/B swap with C/D).

### Thursday 18 :

- 12:00 : Lunch (no activities in the morning, no breakfast)
- 14:00-16:00 Course on virtual observatory/Gaia/TopCat (OLC) <sup>[2]</sup>
- 16:30-18:30 : Hands on data reduction
- 18:00 – 19:00 : Swimming pool
- 19:00 : Dinner
- 21h-22h00 : Presentations of master thesis by 1st Ed students (in the form "My thesis in 180 seconds) <sup>[2]</sup>. Or backup night for observations in case of bad weather the nights before
- 22h00-00h00 : Visual observations with the 400mm CIV telescope (animated by the association Provence Sciences Techniques Jeunesse)

### Friday 19 :

- Breakfast (7:30 – 9:00)
- 9:30 : Bus to Nice, possible stop at airport / train or bus station (arrival @Nice around 11:00)

### Team:

Eric Aristidi, Philippe Bendjoya, Frederic Thevenin, Alexis Matter, Orlagh Creevey, Olga Suarez, Margherita Turconi, Patrice Martinez, Margaux Abello, Cloe Mahe, Filipp Sporykhin, Laurent Boulanger (telescope operator at Calern)

External speakers: Luigi Mancini (Rome)

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