



EXCELENCIA
SEVERO
OCHOA



NUCLIO
NÚCLEO INTERACTIVO DE ASTRONOMIA



IV Summer Course

‘Astronomy Adventure in the Canary Islands’

Directors: Nayra Rodríguez Eugenio and Rosa Doran

Dates: 30 July – 3 August, 2018

Venue: San Cristóbal de La Laguna, Tenerife, Canary Islands, Spain

Duration: 30 hours

Lecturers:

NRE: Nayra Rodríguez Eugenio (Instituto de Astrofísica de Canarias, Spain)

RD: Rosa Doran (Núcleo Interactivo de Astronomia, Portugal)

FL: Fraser Lewis (Faulkes Telescope Project, Cardiff University, United Kingdom)

Organizers:

Instituto de Astrofísica de Canarias (IAC)

Núcleo Interactivo de Astronomia (NUCLIO)

Faulkes Telescope Project (Cardiff University)

Programme

Monday - July 30th Introduction to Astronomy and to the course theme: stars and planets

Morning

9:00 – 9:30	Welcome	NRE, RD, FL
9:30 – 10:00	Presentations: AACI, IAC, GTTP, Teachers	NRE, RD, FL
10:00 – 11:00	Introduction to Astronomy/Astrophysics	NRE
11:00 – 11:30	Break	
11:30 – 13:00	Stars and their Planets	NRE, RD, FL

Afternoon

14:30 – 15:00	Warm up	
15:00 – 17:00	Inquiry, Interdisciplinarity and Big Ideas of Science	RD

Tuesday July 31 The Electromagnetic Spectrum

Morning

9:00 – 9:30	Warm up	
9:30 – 10:30	The message of light (Introduction to the electromagnetic spectrum)	NRE
10:30 – 11:00	Building a Spectroscope	RD
11:00 – 11:30	Break	
11:30 – 12:30	Practical Activity with the Spectroscope	NRE, RD, FL
12:30 – 13:15	Visit to the IAC Instrumentation Area	

Afternoon

14:30 – 15:00	Warm up	
15:00 – 17:00	Discover an Exoplanet	FL

Wednesday August 1 Observing the Universe

Morning

9:00 – 9:30	Warm up	
9:30 – 11:00	Introduction to Stellarium	RD, FL
11:00 – 11:30	Break	
11:30 – 13:00	Preparing an Observing Session (with Stellarium and others)	FL, NRE

Afternoon **Training visit to Teide Observatory**

14:00 – 15:30	Trip to Teide Observatory	
15:30 – 16:30	Astronomy in the Canary Islands and their Observatories	NRE
16:30 – 17:00	Workshop: Observing the Sun	NRE
17:00 – 19:30	Visit to several telescopes with explanations about their work and the science carried with them	NRE
19:30 – 20:30	Break for dinner	
20:30 – 23:30	Workshop: Night observation with amateur telescopes and activity “Astronomers at work”	NRE

Thursday August 2 Robotic Telescopes and astronomical images

Morning

9:00 – 9:30	Warm up	
9:30 – 10:00	Observing with Robotic Telescopes	FL, NRE
10:00 – 10:30	PETeR, Robots looking at the Sky (IAC)	NRE
10:30 – 11:00	The Faulkes Telescope Project	FL
11:00 – 11:30	Break	
11:30 – 13:00	Introduction to image processing (Salsa J and others)	FL, NRE

Afternoon

14:30 – 15:00	Warm up	
15:00 – 17:00	Detecting Variable Stars	NRE, FL

Friday August 3 Active learning with Astronomy

Morning

9:00 – 9:30 Warm up

9:30 – 11:00 Playing with Light Curves NRE, RD, FL

11:00 – 11:30 Break

11:30 – 13:00 Teachers Experiencies (15-20 minutes each)

Afternoon

14:30 – 15:00 Warm up

15:00 – 16:00 Open Schools for Open Societies RD

16:00 - 17:00 Evaluation and final remarks

Saturday August 4

OPTIONAL ACTIVITY: Training visit to Observatorio del Roque de los Muchachos (La Palma)