

ASTRONOMY ADVENTURE IN THE CANARY ISLANDS 2019

THE MESSAGE OF LIGHT

Dates: 15 - 19 July, 2019

Venue: Headquarters of the Instituto de Astrofísica de Canarias (IAC) and Aulario Guajara (University of La Laguna). San Cristóbal de La Laguna, Tenerife, Canary Islands, Spain

Duration: 30 hours

Directors: Nayra Rodríguez Eugenio and Rosa Doran

Lecturers:

Nayra Rodríguez Eugenio - NRE (IAC; Spain)

Coordinator of the Educational Project with Robotic Telescopes (PETeR) and IAC science popularizer

Rosa Doran - RD (NUCLIO; Portugal)

President of NUCLIO, chair of the Galileo Teacher Training Program and vice-president of the executive council of the Global Hands-on Universe Association

Fraser Lewis - FL (Cardiff University; United Kingdom)

Research Director of the Faulkes Telescope Project (FTP) and Operations Officer for the National Schools' Observatory (NSO)

Beatriz González García - BGG (ISDEFE, CESAR; Spain)

Coordinator of the scientific case development team of the CESAR initiative and XMM-Newton Data Aid

Antonia M. Varela Pérez- AVP (IAC, Starlight Foundation; Spain)

Director of the Starlight Foundation and IAC researcher

Miquel Serra-Ricart - MSR (IAC; Spain)

Manager of the Teide Observatory and an IAC researcher



Programme

Monday - July 15 Location: IAC Headquarters

Morning

9:00 – 9:30	Welcome to the participants – Ice Break	NRE, RD, FL, BGG
9:30 – 10:00	Presentations: IAC, GTTP, Teachers	NRE, RD
10:00 – 11:00	Introduction to Astronomy/Astrophysics	NRE
11:00 – 11:30	Break	
11:30 – 12:00	The message of light (Introduction to the electromagnetic spectrum)	NRE
12:00 – 13:00	Visit to the IAC Instrumentation Area	

Afternoon

14:30 – 15:00	Warm up	
15:00 – 16:00	Inquiry based learning	RD
16:00 – 17:00	Interdisciplinarity with the Big Ideas of Science	RD

Tuesday July 16 Location: Aulario Guajara ULL

Morning

9:00 – 9:30	Warm up	
9:30 – 11:00	Astrophysics and the periodic table of chemical elements	NRE
11:00 – 11:30	Break	
11:30 – 12:30	Building a Spectroscope	RD
12:30 – 13:00	Practical Activity with the spectroscope: The barcode of elements	NRE

Afternoon

14:30 – 15:00	Warm up	
15:00 – 16:00	Introduction to Stellarium	FL
16:00 – 17:00	Preparing an Observing Session	FL, NRE



Wednesday July 17 **Location: Aulario Guajara ULL**

Morning

9:00 – 9:30	Warm up	
9:30 – 11:00	Robotic Telescopes: The Faulkes Telescope Project	FL
11:00 – 11:30	Break	
11:30 – 13:00	Robotic Telescopes: PETeR (IAC)	NRE

Afternoon

14:30 – 15:00	Warm up	
15:00 – 17:00	Introduction to image processing	FL, RD

Thursday July 18

Morning **Location: Aulario ULL**

9:00 – 9:30	Warm up	
9:30 – 11:00	Discovering a black hole candidate	RD
11:00 – 11:30	Break	
11:30 – 13:00	Light pollution (Starlight Foundation, Stars4All, Dark sky rangers)	RD, AVP, MSR

Afternoon **Training visit to Teide Observatory**

14:30 – 15:30	Trip to Teide Observatory	
15:45 – 16:30	Astronomy in the Canary Islands and their Observatories	NRE
16:30 – 16:45	Teachers Experiencies	Laureen V. Pérez
16:45 – 18:00	Workshop: Observing the Sun	NRE, Sandra Benítez (IAC)
18:00 – 19:15	Visit to several telescopes with explanations about their work and the science carried out with them	NRE, Sandra Benítez (IAC)
19:30 – 20:30	Break for dinner	
21:00 – 23:30	Workshops: Night observation with amateur telescopes, Astronomers at work	NRE, Sandra Benítez (IAC)



Friday July 19 Location: Aulario Guajara ULL

Morning

9:30 – 11:00 CESAR Project BGG, CESAR Coordinators

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 Design Thinking for Open Schooling RD

16:00 - 17:00 Evaluation and final remarks

OPTIONAL ACTIVITIES:

Sunday July 14 Location: Hotel Laguna Nivaria

17:00 – 20:00 Introductory talk “Education and the 21st Century skills” and Welcome Reception

Saturday July 20 Location: La Palma island

09:00 – 20:00 Training visit to Observatorio del Roque de los Muchachos, La Palma, at own expenses.

