

19 - 23 October 2020

# A JOURNEY TO SPACE EXPLORATION MISSIONS

GALILEO TEACHER TRAINING PROGRAM

# DAY 1 | THE EARTH

19 OCTOBER 2020



#ESA\_GTTP2020

Central European Summertime CEST = WEST+1h = UTC +2h = GMT +2h

## 10:00 WELCOME TO THE COURSE

**Günther Hasinger**

ESA Director of Science & ESAC Director

**Miguel Más Hesse**

Centre of Astrobiology, Astrophysics Department (CSIC-INTA)

**Jesús Alonso Martín**

ISDEFE Business Development Director

**Michel G. Breitfellner, Beatriz González-García**

CesaR Team

**Rosa Doran**

NUCLIO

## 11:00 INTRODUCTION TO THE EUROPEAN SPACE AGENCY

**Javier Ventura-Traveset**

ESA Head of Galileo Navigation Science Office

## 12:00 COFFEE BREAK

## 12:15 ESA EARTH EXPLORERS

**Jorge Fauste**

ESA SMOS Instrument Operations Manager

## 13:15 LUNCH

## 14:30 WARM UP

## 14:45 21ST CENTURY SKILLS ON A MISSION TO EARTH

**Rosa Doran**

NUCLIO

## 15:45 HANDS-ON SESSION: A 3D EARTH WITH GOOGLE EARTH

**Beatriz González-García**

CesaR Scientific Contents Coordinator

## 16:30 COFFEE BREAK

## 16:45 GRAVITY, MAGNETISM AND SPACE PHYSICS

**Rune Floberghagen**

ESA Head of the Mission Operations Division

## 17:30 NAVIGATION SATELLITES AND EARTH OBSERVATION

**Manuel Castillo Fraile**

GNSS Galileo Science Office, Mars Express Science Ground Segment

## 18:00 VIRTUAL VISIT TO THE SMOS CONTROL ROOM

**Jorge Fauste**

ESA SMOS Instrument Operations Manager

## 18:15 TEACHERS FEEDBACK & ANNOUNCEMENTS





19 - 23 October 2020

# A JOURNEY TO SPACE EXPLORATION MISSIONS

GALILEO TEACHER TRAINING PROGRAM

# DAY 2 | MARS

20 OCTOBER 2020



#ESA\_GTTP2020

Central European Summertime CEST = WEST+1h = UTC +2h = GMT +2h

## 10:00 MARS MISSIONS

**Alejandro Cardesín**

Mars Express Science Ground Segment Manager  
Science Operations Coordination with ExoMars

## 11:00 HANDS-ON SESSION: MARS SEASONS

**Beatriz González-García**

CesaR Scientific Contents Coordinator

## 12:00 COFFEE BREAK

## 12:15 HANDS-ON SESSION: CRATERS IN THE CLASSROOM & DNA ACTIVITY

**Sandra Benitez Herrera**

Instituto Astrofísica de Canarias (IAC) communicator, CosmoLAB coordinator

## 13:15 LUNCH

## 14:30 WARMUP

## 14:45 HANDS-ON SESSION: IMAGE PROCESSING WITH SALSAJ

**Rosa Doran**

NUCLIO

## 15:45 HANDS-ON SESSION: MARS EXPRESS VISUAL MONITORING CAMERA

**Jorge Hernández Bernal**

University of the Basque Country

## 16:45 COFFEE BREAK

## 17:00 HANDS-ON SESSION: MISSION TO MARS

**Beatriz González-García**

CesaR Scientific Contents Coordinator

## 18:00 VIRTUAL VISIT TO THE MARS ROOM (ESAC)

**Michel G. Breittellner**

CesaR Coordinator, Mars Express Science Operations Engineer

## 18:15 TEACHERS FEEDBACK & ANNOUNCEMENTS



19 - 23 October 2020

# A JOURNEY TO SPACE EXPLORATION MISSIONS

GALILEO TEACHER TRAINING PROGRAM

# DAY 3 | THE SUN

## 21 OCTOBER 2020



#ESA\_GTTP2020

Central European Summertime CEST = WEST+1h = UTC +2h = GMT +2h

### 10:00 GETTING TO KNOW OUR STAR: 50 YEARS OF SOLAR OBSERVATIONS FROM SPACE

Anik de Groof

ESA Solar Orbiter Instrument Operations Scientist

### 11:00 INTRODUCTION TO STELLARIUM

Rosa Doran

NUCLIO

### 11:30 HANDS-ON SESSION: PLAY WITH STELLARIUM

Rosa Doran, Fraser Lewis, Beatriz González-García, Michel G. Breitfellner

### 12:00 COFFEE BREAK

### 12:15 HANDS-ON SESSION: YOU ARE GALILEO (WITH STELLARIUM)

Rosa Doran

NUCLIO

### 13:15 LUNCH

### 14:30 WARMUP

### 14:45 HANDS-ON SESSION: ECLIPSES & TRANSITS (WITH SALSAJ)

Rosa Doran, Manuel Castillo Fraile

### 15:45 VIRTUAL VISIT TO THE CESAR ESAC OBSERVATORIES

Michel G. Breitfellner

CesaR Coordinator, Mars Express Science Operations Engineer

### 16:00 CESAR SPACE SCIENCE EXPERIENCE ON-LINE

Beatriz González-García

CesaR Scientific Contents Coordinator

### 16:45 COFFEE BREAK

### 17:00 HANDS-ON SESSION: DIFFERENTIAL SUN ROTATION & CORONAL MASS EJECTION

Beatriz González-García

CesaR Scientific Contents Coordinator

### 18:15 TEACHERS FEEDBACK & ANNOUNCEMENTS





19 - 23 October 2020

# A JOURNEY TO SPACE EXPLORATION MISSIONS

GALILEO TEACHER TRAINING PROGRAM

# DAY 4 | COSMIC VISION

22 OCTOBER 2020



#ESA\_GTTP2020

Central European Summertime CEST = WEST+1h = UTC +2h = GMT +2h

## 10:00 TALK: ESA SCIENCE MISSIONS

**Markus Kissler-Patig**

ESA Head of the Science and Operations Department

## 11:00 HANDS-ON SESSION: THE MYSTERIES OF THE UNIVERSE WITH ESASKY

**Beatriz González-García**

CesaR Scientific Contents Coordinator

## 12:00 COFFEE BREAK

## 12:15 ROBOTIC ASTRONOMY: THE FAULKES TELESCOPE PROJECT & NATIONAL SCHOOLS' OBSERVATORY

**Fraser Lewis**

Faulkes Telescope Project & National Schools' Observatory

## 13:15 LUNCH

## 14:30 WARMUP

## 14:45 EXPLORE THE UNIVERSE WITH PETER

**Nayra Rodríguez Eugenio**

Instituto Astrofísica de Canarias (IAC) communicator, PETeR coordinator

## 15:45 HANDS-ON SESSION: SUPERNOVAE WITH ROBOTIC TELESCOPES 1

**Nayra Rodríguez Eugenio & Fraser Lewis**

## 16:45 COFFEE BREAK

## 17:00 HANDS-ON SESSION: SUPERNOVAE WITH ROBOTIC TELESCOPES 2

**Fraser Lewis & Nayra Rodríguez Eugenio**

## 18:00 VIRTUAL VISIT TO THE XMM-NEWTON CONTROL ROOM

**María Santos Lleó**

XMM-Newton Science Operations Manager

## 18:15 TEACHERS FEEDBACK & ANNOUNCEMENTS



19 - 23 October 2020

# A JOURNEY TO SPACE EXPLORATION MISSIONS

GALILEO TEACHER TRAINING PROGRAM

## DAY 5 | SCIENCE IN THE SOCIETY

23 OCTOBER 2020



#ESA\_GTTP2020

Central European Summertime CEST = WEST+1h = UTC +2h = GMT +2h

### 10:00 SPACE SAFETY

**Beatriz Jilete**

Space Surveillance and Tracking Systems Engineer  
Space Debris Office, Space Safety Programme Office

### 11:00 HANDS-ON SESSION: EARTH OBSERVATION FOR SOCIETY (GOOGLE EARTH & SNAP)

**Manuel Castillo Fraile**

GNSS Galileo Science Office, Mars Express Science Ground Segment

### 12:00 COFFEE BREAK

### 12:15 SPACE IN OUR DAILY LIVES – DESIGN THINKING & CAREERS

**Rosa Doran**

NUCLIO

### 13:15 LUNCH

### 14:30 WARMUP

### 14:45 DIGITAL SKILLS, OPEN SCHOOLING AND INCLUSION

**Rosa Doran, Sandra Benitez Herrera**

### 15:45 HANDS-ON SESSION: HUNTING SATELLITES WITH PLANETARIUM SW & APPS

**Gustavo Rojas**

NUCLIO

### 16:45 COFFEE BREAK

### 17:00 CLASSROOM RESOURCES

*All speakers*

### 18:00 EVALUATION AND FINAL REMARKS

### 18:15 ERASMUS SCHOOL'S ACCREDITATION

**Rosa Doran**

NUCLIO

### 18:30 CLOSING EVENT (ACKNOWLEDGEMENTS)

