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Site d'observation du PLATEAU DE CALERN
2130, route de l'Observatoire
Caussols
06460 Saint-Vallier-de-Thiery
Tél.: +33 (0)4 93 40 54 54



UMR ARTÉMIS
Boulevard de l'Observatoire
CS 3429 - F06304 Nice Cedex 4
Tél.: +33 (0)4 92 00 30 11



UMR J-L LAGRANGE
UFR Sciences - Parc Valrose
Bât. H. Fizeau
06108 NICE Cedex 2
Tél.: +33 (0)4 92 07 63 60



UMR GÉOAZUR
250, rue Albert Einstein
CS 10269 - 06905 Sophia Antipolis Cedex
Tél.: +33 (0)4 83 61 85 00

Observatoire de la CÔTE d'AZUR
Boulevard de l'Observatoire
CS 34229 - F06304 Nice Cedex 4
Tél : +33 (0)4 92 00 30 11



Crédits : ESA, ESO, CNES, NASA, Gravitational Observatory, H. de Bru, Drone expertise, F. Mourau, Marc Heiler@ Observatoire de la Côte d'Azur, Rose, Service communication de l'OCA



TRAINING

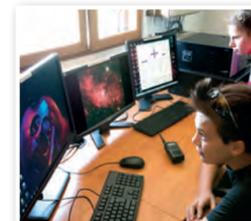
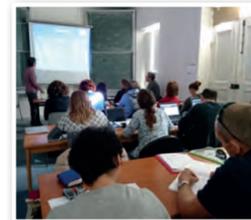
OCA plays an active part in the teaching of physics, geosciences, data-processing and signal-processing at the Université de Nice Sophia Antipolis (degree, masters and PhD). OCA offers a Masters in Astronomy and Astrophysics (MAUCA) and houses a University Space Centre (CSUCA) in partnership with CNES. L'Observatoire de la Côte d'Azur is developing a policy to fund thesis scholarships with local authorities and industries in order to welcome a large number of PhD students.

The Henri Poincaré Junior Programme offers two-month training internships to foreign students (M2 or PhD students) selected on the excellence of their academic records and who come from countries where astronomy and geosciences are emerging.

Centre Pédagogique Planète Univers (C2PU) comprises two telescopes involved in several research programmes in different fields of Astronomy and used for teaching science at university and pre-university level. They are located at the Calern site in Caussols.

OBSERVATION : PLATEAU DE CALERN

The Plateau de Calern in Caussols was selected in 1970 as the site for a new astrometric observatory. Scientific life thrives there with projects developed from previous experience acquired and the special links between astronomy, geophysics, space geodesy, teaching and research.



OUTREACH

OCA takes part in a number of scientific cultural operations such as the *Fête de la Science* and *Journées du Patrimoine* (Science Festival and Heritage Days). OCA organises events for the general public such as *La Nuit Coupôles Ouvertes* (open dome night) in Calern, exhibitions, conferences, etc. OCA is also involved in teacher-training programmes, in outreach activities with pupils, and in participatory science programmes with schools in particular:

- **EDUMED** Observatory: Introduces college pupils and students to data science (seismology, meteorology, oceans) in the northern Mediterranean area.
- **EDUCOSMOS**: An educational astrophysics programme that teaches observation to schoolchildren with a professional telescope in order to collect data that are made available to the scientific community.



Observatoire de la CÔTE d'AZUR

RESEARCH

OBSERVATION

TRAINING

OUTREACH



Member of UNIVERSITÉ CÔTE D'AZUR

A combination of exceptional heritage and contemporary research

L'Observatoire de la Côte d'Azur is a public institution whose tasks include **research, observation, training** and **outreach**.

L'Observatoire de la Côte d'Azur is one of 25 Observatories for Earth and Space Sciences in France (Observatoires des Sciences de l'Univers - OSU - <http://www.insu.cnrs.fr/osu>). Constituted of three Joint Research Units, **Artémis, Lagrange and Géoazur**, and one Joint Service Unit, **Galilée**, the role of OCA is to explore, understand and advance Earth and Space Sciences. As the Côte d'Azur research cluster on astrophysics and Earth sciences, it focuses on understanding the physical processes that take place from within our planet to the outer confines of the Universe.

RESEARCH

L A G R A N G E

The **Joseph-Louis Lagrange** (CNRS-UNS-OCA) Joint Research Unit includes teams working on astrophysics, fluid mechanics, signal and image processing and instrumentation for observation. The researchers are involved in the development of new models to match with observations acquired on large ground-based telescopes and space missions.

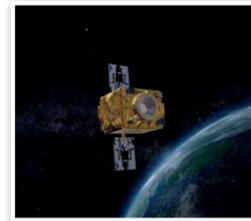
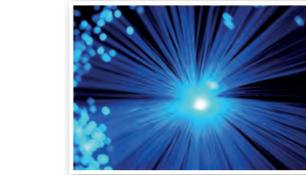
The Lagrange laboratory plays a major role in several observation services:

- Instrumentation for large ground-based and space-based observatories
- National and international observation stations
- Large-scale deep surveys
- Data processing and archiving centre
- Solar monitoring, solar-terrestrial relations and the terrestrial environment

PROJECTS :

- **C4PO** (Center for Planetary Origin): A research consortium dedicated to understanding the origin of planetary systems.
- **MATISSE**: A second-generation instrument for the ESO VLT interferometer.
- **EUCLID**: A satellite to detect dark matter and dark energy in the Universe.
- **AIDA**: A binary asteroid deflection test.
- **Gaia**: The precise charting of a three-dimensional map of our Galaxy and the Solar System.

lagrange.oca.eu



The **Géoazur** Joint Research Unit (CNRS-UNS-OCA-IRD) groups together geophysicists, geologists and astronomers on major scientific issues such as seismogenesis, telluric risks, lithospheric deformations, Earth observation imagery and space metrology.

The Géoazur laboratory is an actor in several observation services:

- Space geodesy
- Seismology
- Instabilities and landslides

PROJECTS:

- **RESIF**: Observation and understanding of solid Earth dynamics.
- **OBSIVA**: Virtual seismic observatory network of the Antilles subduction zone.
- **SEAFOOD**: Evolution of the sea floor with distributed Fibre-Optic Sensing (DFOS) technology.
- **MICROSCOPE**: Space test of the equivalence principle.

geoazur.oca.eu

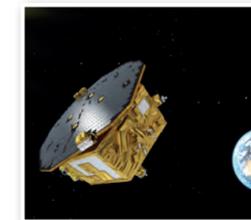
A R T É M I S

The **Artémis** Joint Research Unit (CNRS-UNS-OCA) is comprised of laser and signal processing specialists, mathematicians and compact object astrophysicists.

PROJECTS :

- **VIRGO**: An instrument located near Pisa in Italy that is designed to detect gravitational waves from the cosmos. In August 2017, VIRGO detected the gravitational signal generated by the spectacular collision of two neutron stars.
- **LISA**: This international space mission will explore the most violent phenomena in the Universe: the merger of two supermassive black holes in the centre of galaxies.
- **TAROT**: A telescope that automatically detects gamma-ray bursts for multimessenger astrophysics.
- **R&D**: On extremely stable high-power lasers and their applications (Virgo, ITER).

artemis.oca.eu



G É O A Z U R

VISITS



The Mont-Gros site in Nice
Wednesday and Saturday all year round and Fridays during French Zone B holidays: 2.45 pm.



The Calern site
May 1 to September 30: every Sunday at 3.15 pm.

oca.eu/fr/visites

PATRONAGE



« **Become an actor in History** » in the footsteps of patron Raphaël-Louis Bischoffsheim. OCA is a major actor in Earth and space sciences and the custodian of a remarkable historical heritage. By supporting the Observatoire de la Côte d'Azur, you will be contributing towards:

- The protection of a heritage that has been classified as a historical site
- The protection of buildings designed by architect Charles Garnier
- The site remaining open to the public
- The allocation of PhD scholarships to young researchers

oca.eu/fr/mecenat

PRIVATISATION

Our sites at Mont-Gros (Nice) and on the plateau de Calern (Caussols) both attract a large number of photographers, documentary and film-makers such as Woody Allen (Magic in the Moonlight). The Observatoire de la Côte d'Azur will be delighted to host your seminars and events, subject to conditions.

