

Memorandum of Understanding

THE FUNDACIÓN GALILEO GALILEI – INAF (FGG)

AND

THE INSTITUTO DE ASTROFÍSICA DE CANARIAS (IAC)

ON THE HOUSING WORKS FOR THE STRIP TELESCOPE

AT THE TEIDE OBSERVATORY

REVISED VERSION 31-10-2023

1/7

ÁMBITO- PREFIJO

GEISER

Nº registro

REGAGE23e00076433580

CSV

GEISER-7d17-ca09-a194-5ba7-4cf8-0997-c3ed-6c3a

DIRECCIÓN DE VALIDACIÓN

<https://sede.administracionespublicas.gob.es/valida>

FECHA Y HORA DEL DOCUMENTO

10/11/2023 14:03:09 Horario insular

Validez del documento

Original



THE PARTIES

Professor Rafael Rebolo López, in his capacity as Director of the Consorcio Instituto de Astrofísica de Canarias (hereinafter, IAC), Calle Vía Láctea, s / n, 38201 San Cristóbal de La Laguna, Santa Cruz de Tenerife, Spain and CIF Q3811001A, acting on its behalf by virtue of the appointment made by the Governing Board of the IAC on August 2, 2013, and with the powers conferred on him in accordance with the Law 14/2011 of June 1st, on Science, Technology and Innovation, and in the Statutes of the IAC (BOE of December 21, 2018),

AND,

Dr. Adriano Ghedina, in his capacity as Director of the Fundación Galileo Galilei - INAF Fundación Canaria (hereafter, FGG-INAF), based in Rambla José A. Fernández P. , 7, 38712 San Antonio de B. Baja, Santa Cruz de Tenerife, Spain, acting on its behalf by virtue of the appointment made by the *Patronato de la Fundación Galileo Galilei*, on November 3rd, 2022 and with the powers conferred on him in accordance with the current FGG-INAF Statute.

The IAC and FGG-INAF shall be referred to jointly as the "**Parties**" and individually as a "**Party**". The Parties recognize their legal capacity to enter into this MoU on behalf of their institutions, and

MANIFEST

- I. That the Spanish State Administration has exclusive competence for the promotion and general coordination of scientific and technical research in Spain, in accordance with the Spanish Constitution of December 29, 1978, in article 149.1.15^a.
- II. That the IAC is a Spanish Public Research Organization, legally constituted as a Public Consortium and integrated by the General Administration of the State, the Public Administration of the Autonomous Community of the Canary Islands, the University of La Laguna and the Superior Council of Scientific Research (CSIC), in accordance with the Law 14 / 2011 of June 1, of Science, Technology and Innovation.
- III. That the purposes of the IAC, in accordance with its Statutes (Official State Gazette, December 21, 2018), are astrophysical research, the development of scientific instrumentation, the training of research personnel, the administration of the Canary Islands Observatories (hereafter, "Observatorios de Canarias") and scientific outreach.

REVISED VERSION 31-10-2023

2/7

ÁMBITO- PREFIJO

GEISER

Nº registro

REGAGE23e00076433580

CSV

GEISER-7d17-ca09-a194-5ba7-4cf8-0997-c3ed-6c3a

DIRECCIÓN DE VALIDACIÓN

<https://sede.administracionespublicas.gob.es/valida>

FECHA Y HORA DEL DOCUMENTO

10/11/2023 14:03:09 Horario insular

Validez del documento

Original



- IV.** That the FGG-INAF is a Spanish non-profit institution. The FGG's aim is to promote:
- astrophysical research by managing the Telescopio Nazionale Galileo (TNG), located in the Island of San Miguel de La Palma, together with other scientific, technical and administrative facilities, and;
 - also any other astrophysical activity that INAF wants to develop.
- V.** That prior to FGG-INAF's constitution Italy signed on 2 July 1992 the Protocol on Cooperation in Astrophysical research in Spain.
- VI.** That the FGG-INAF, which is acting on behalf of INAF, and the IAC have mutual interest in the installation and operation of the STRIP telescope at the Teide Observatory;
- VII.** The STRIP microwave telescope is being developed within the Large Scale Polarization Experiment (LSPE) program, funded by an international consortium of which INAF and IAC are members. LSPE objective is the high precision measurement of the cosmic microwave background polarization, with the aim of searching the presence of gravitational waves at the time of cosmic inflation ($t \sim 10^{-35}$ s, $E \sim 10^{35}$ GeV). LSPE is composed of 2 instruments: SWIPE in a stratospheric balloon will measure in the frequency bands of 140, 220 and 240 Hz, while STRIP will be installed at the Teide Observatory in Tenerife and will observe in two bands at 40 and 90 Hz. The Teide Observatory is chosen due to the low content of water vapour in the atmosphere and the presence of already installed complementary instrumentation as QUIJOTE and GroundBIRD. In order to install the STRIP telescope at the site hosted by the Observatorio del Teide, it is necessary to reform the agreed housing of the telescope and complete the installation with roof, concrete platforms, power and data lines.
- VIII.** That as the Kingdom of Spain opened the Observatorios de Canarias to the international scientific community by means of the International Treaty: "Agreement on Co-operation in Astrophysics and its Protocol", which was signed on 26 May 1979, and Italy adhered to the Treaty in 1992, the proposed STRIP experiment is invited by IAC to be installed at the Teide Observatory in accordance with the terms and conditions hereby established.
- IX.** The FGG-INAF and the IAC have established this MoU, as expressed in Clauses 1 to 4, and Appendices A B C (which are integral part of this MoU), in accordance with the following:



CLAUSES

1. OBJECT OF THE MoU

The purpose of this MoU is set the collaborative framework of FGG-INAF and the IAC for the installation of the STRIP telescope at the Teide Observatory, Tenerife, under the terms and conditions contemplated hereafter.

2. THE PARTIES HEREBY AGREE

- 2.1 In order to reinforce the participation of INAF in the STRIP project, the FGG-INAF, acting on behalf of the INAF, is willing to transfer to the IAC funds up to a maximum of 65 keuro to contribute to the reform and conditioning works of the housing for the STRIP telescope at Teide Observatro. Any transfer of funds will be made via proper invoicing by IAC.
- 2.2 The IAC will be responsible to publish any tender for the works, assign the works to the selected construction company and of presenting all required documents to obtain local construction licences;
- 2.3 The IAC shall be responsible of the supervision and safety on site of the reform works;
- 2.4 The FGG-INAF will have no rights nor responsibilities on the works done for the housing;
- 2.5 The FGG-INAF will have no responsibilities nor charges for extra expenses that will derive from the construction works;
- 2.6 The IAC shall issue a receipt document of the quantity received as well as a certificate at the ending of the reform works.

3. DURATION OF THE MoU

- 3.1 This MoU will be effective once it has been signed by the representatives of the Parties.
- 3.2 This MoU will have an initial duration of 2 years, and may be renewed for additional periods by mutual agreement in writing between the authorized representatives of the parties while Italy is adhering to the International Treaty and it has not been cancelled by Spain.

4. TERMINATION OR RESOLUTION OF THE MoU

- 4.1 This MoU will terminate when the objectives have been achieved or in the event of its cancellation.
- 4.2 The following are the causes of termination:
 - 4.2.a) Completion of the period of its validity without an agreement to extend it.
 - 4.2.b) The unanimous agreement of the signatories.

REVISED VERSION 31-10-2023

4/7

ÁMBITO- PREFIJO

GEISER

Nº registro

REGAGE23e00076433580

CSV

GEISER-7d17-ca09-a194-5ba7-4cf8-0997-c3ed-6c3a

DIRECCIÓN DE VALIDACIÓN

<https://sede.administracionespublicas.gob.es/valida>

FECHA Y HORA DEL DOCUMENTO

10/11/2023 14:03:09 Horario insular

Validez del documento

Original



- 4.2.c) Failure to comply with the obligations and commitments assumed by one of the signatories.
- In this case, any of the parties may notify the non-performing party of a requirement to comply in a certain period with the obligations or commitments that are considered unfulfilled. This requirement shall be communicated to the person in charge of the mechanism for monitoring, enforcing and controlling the execution of the MoU and to the other signatory parties.
 - If after the period specified in the request the breach persists, the party who addressed it will notify the signing parties of the concurrence of the cause of resolution and the MoU will be deemed resolved.
- 4.2.d) By judicial decision declaring the MoU to be null and void.
- 4.2.e) Due to force majeure or failure to comply with the proposed object, such as not having sufficient funding to participate. In this case, formal notification must be provided to the other party at least six months in advance.
- 4.2.f) For any other cause different from the previous ones that is foreseen in law.

APPENDICES ATTACHED ARE:

- APPENDIX A – TECHNICAL DESCRIPTION OF THE STRIP TELESCOPE
APPENDIX B – OBSERVATION SITE OF THE STRIP TELESCOPE

**For the FUNDACIÓN GALILEO
GALILEI - INAF**



**Dr. Adriano Ghedina
Director**

Date: 31/10/2023

**For the INSTITUTO DE
ASTROFÍSICA DE CANARIAS**



**Prof. Rafael Rebolo López
Director**

Date: 31/10/2023

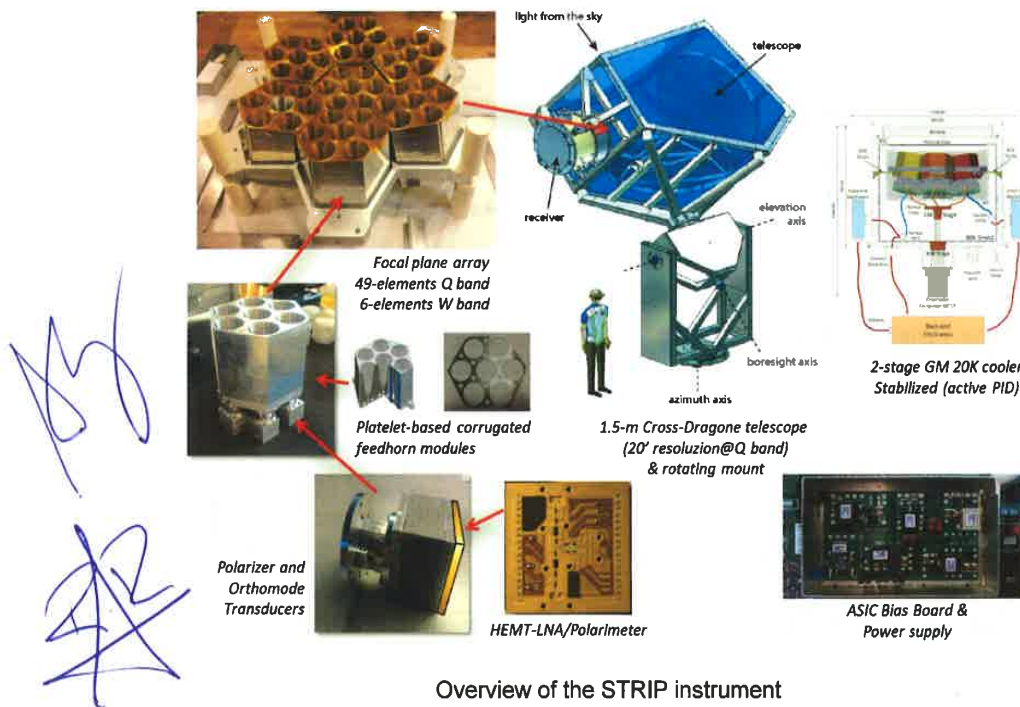


APPENDIX A

DESCRIPTION OF THE STRIP EXPERIMENT

The STRIP experiment will comprise:

A 1.5-m-aperture double-reflector, off-axis telescope mounted on a rotating structure. The telescope and instrument will be located in one of the three former enclosures of the VSA.



REVISED VERSION 31-10-2023

6/7

ÁMBITO- PREFIJO

GEISER

Nº registro

REGAGE23e00076433580

CSV

GEISER-7d17-ca09-a194-5ba7-4cf8-0997-c3ed-6c3a

DIRECCIÓN DE VALIDACIÓN

<https://sede.administracionespublicas.gob.es/valida>

FECHA Y HORA DEL DOCUMENTO

10/11/2023 14:03:09 Horario insular

Validez del documento

Original



GEISER-7d17-ca09-a194-5ba7-4cf8-0997-c3ed-6c3a

APPENDIX B

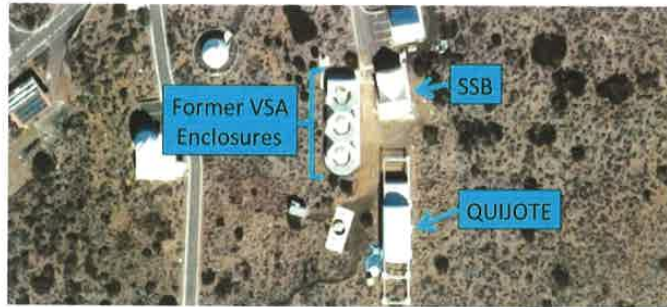
THE OBSERVATION SITE OF THE STRIP EXPERIMENT

A general layout of the area of the OT around the future location of the experiment STRIP is shown in the figure below. The three former VSA enclosures with hexagonal shape are seen near the centre of the image. One of the three enclosures will be the telescope site for the STRIP experiment. The QUIJOTE enclosure is seen southwards. The photograph also shows the site service building (SSB).

The IAC will prepare the final selected enclosure for the installation of the STRIP experiment. The IAC should remove any debris from the previous projects.

The IAC will provide a suitable electrical connection point before installing the STRIP experiment.

The usability of the Wireless LAN will be examined in advance by the IAC.



Bird's-eye view of the STRIP site (taken from Google Maps)



Former VSA enclosures



ÁMBITO- PREFIJO

GEISER

Nº registro

REGAGE23e00076433580

CSV

GEISER-7d17-ca09-a194-5ba7-4cf8-0997-c3ed-6c3a

DIRECCIÓN DE VALIDACIÓN

<https://sede.administracionespublicas.gob.es/valida>

FECHA Y HORA DEL DOCUMENTO

10/11/2023 14:03:09 Horario insular

Validez del documento

Original

