

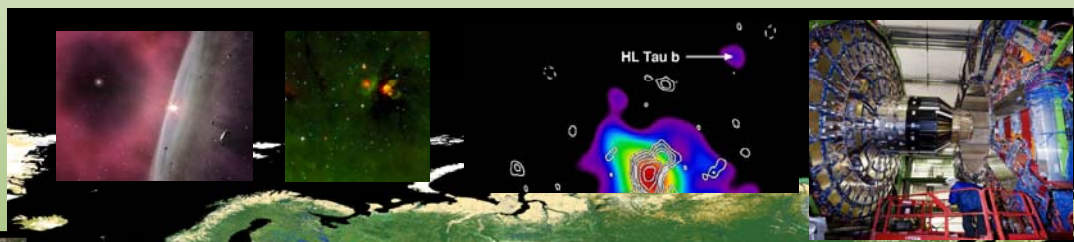


## Spanish National Research Council

The *Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC)* is the largest public multidisciplinary research organisation in Spain. It has a staff of more than 12.000 employees, including 3000 scientists and 4000 pre and postdoctoral researchers, working in 130 Institutes and centres distributed across Spain. Its annual budget is close to 900 M euros.

## Physical Science and Technology Area

| RESEARCH LINES IN PHYSICS                            |        |
|--|--------|
| Astrophysics and Space Sciences                      | ASTRO  |
| Physical Technologies                                | TEC    |
| Mathematics  | MATH   |
| Particle Physics, Astroparticles and Nuclear Physics | FPAN   |
| Atomic and Molecular Physics                         | MOL    |
| Optics   | OPT    |
| Complex Systems and Statistical Physics              | QFISES |
| Nanoscience and Nanotechnology                       | NANO   |
| Integrated Micro and Nano Systems                    | MICRO  |
| Computing Sciences and Technologies                  | ICT    |



| BILATERAL AGREEMENTS |   |
|----------------------|---|
| COUNTRY              | INSTITUTION   |
| China                | Chinese Academy of Sciences (CAS)                   |
|                      | National Natural Science Foundation of China (NSFC) |
| Korea                | Korea Science and Engineering Foundation (KOSEF)    |
| Japan                | Japan Society for the Promotion of Science (JSPS)   |
| Taiwan               | National Science Council (NSC)                      |
| Vietnam              | Vietnamese Academy of Science and Technology (VAST) |

| CSIC INSTITUTES IN THE AREA OF CIENCIAS Y TECNOLOGÍAS FÍSICAS |            |      |            |
|---|------------|------|------------|
| CAB   | ASTRO      | IMB  | NANO MICRO |
| IAA   | ASTRO      | IMM  | NANO       |
| ICE   | ASTRO      | IMSE | MICRO      |
| ICMAT   | MATH       | IO   | NANO       |
| ICMA3   | QFISES OPT | IRI  | OPT        |
| ICMA4   | QFISES OPT | IRI  | TEC ICT    |
| ICMA5   | QFISES OPT | IRI  | TEC ICT    |
| ICMA6   | QFISES OPT | IRI  | TEC ICT    |
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| ICMA100   | QFISES OPT | IRI  | TEC ICT    |



| LARGE SCIENTIFIC FACILITIES IN THE AREA |  |           |                 |
|---|--|-----------|-----------------|
| Centre                                  | Infrastructure   | Place     | Type            |
| SI                                      | Sala Blanca del Centro Nacional de Microelectrónica (Clean Rooms at the National Centre in Microelectronics) | Barcelona | ICTS UJHH CSIC  |
| CAMA                                    | Centro Astronómico Hispano Alemán (Calar Alto)   | Madrid    | ICTS CSIC-MPA   |
| CNA                                     | Centro Nacional de Aceleradores (National Centre for Accelerators)   | Sevilla   | ICTS CSIC-US-IA |



The fundamental mission of the CSIC's Physical Science and Technology Area is the advancement of science by addressing new challenges, ranging from the basic approach provided by models and theories in physics and mathematics, through to the experimental and technological perspective where it serves as a complement to engineering.

### Relevant ongoing projects with international dimension

- ESA missions: XMM, Planck, Herschel, COROT, Integral, Solar missions.
- ESO observatories: ALMA, VLT
- CERN: LHC (ATLAS & CMS);
- ILC, CDF
- FAIR, SPIRAL-2
- EELT, CTA, KM3NET
- EGI

### New initiatives on instrumentation and energy

- Cryogenic technology for space
- Hard radiation sensors for high multiplicity
- Optical fibers, microlenses, adaptive optics
- Biomed photonics & neural imaging
- Social robotics
- High efficiency photovoltaic panels
- Fuel cells