LAEFF and the ESAC Faculty
LAEFF: a space research laboratory

- LAEFF (Laboratory for Space Astrophysics and Fundamental Physics) was founded in 1991 as a collaboration between
  - INTA, the national aerospace organization,
  - CSIC, the national research council,
  - and ESA.

- LAEFF was located at Villafranca to allow for a closer interaction with the ESA astronomical activities (IUE, ISO, XMM,....)
LAEFF: a space research laboratory

• LAEFF Objectives:

  – Advanced research in the field of Astrophysics, in a broad sense, oriented towards the use of space-borne facilities.

  – Development of space instrumentation, acting as interface between the engineering teams at INTA and the astronomical community.

  – Development and exploitation of astronomical data archives.

  – Support to operations of scientific space missions.
LAEFF Activities

• Astrophysics
  
  – *Extragalactic astrophysics: starburst galaxies, Seyfert galaxies, multiwavelength modelling*
  
  – *Star formation and evolution*
    (from very low mass to very massive stars)
  
  – *Planetary systems formation*
  
  – *Interstellar medium*
LAEFF Activities

• Space instrumentation
  – EURD and LEGRI on MINISAT-01
  – Optical Monitoring Camera on INTEGRAL
  – EddiCam on Eddington (definition studies)
  – MIRI on the James Webb Space Telescope

• Scientific operations
  – LAEFF has been responsible for the scientific operations of the instruments onboard MINISAT-01
  – Support to the operations of the OMC onboard INTEGRAL
LAEFF Activities

• Data archives

  – LAEFF became the national host for IUE ULDA
  – LAEFF is presently the Principal Centre of the IUE INES system
  – LAEFF hosts the scientific data archive of INTEGRAL/OMC, and the pre-mission archives of Corot
  – LAEFF is developing the Spanish Virtual Observatory, including the GTC Data Centre.
LAEFF Activities

• Support to radioastronomy
  – **LAEFF is responsible for the astronomical use of the radioantennae in the Robledo de Chavela station**
  – **LAEFF is running the educational programme PARTNeR with the 34 m antenna in Robledo.**
The Faculty

• LAEFF staff is willing to contribute to the ESAC Faculty, promoting the scientific activities and the cooperation and coordination within the different research groups. LAEFF can provide:
  – *Our connections to the University world in Madrid*
  – *Our relation to the engineering labs at INTA*
  – *The organization being built through the ASTRID programme*

• Suggestions
  – *Funding of postgraduate students, mostly PhD ones under the (co-) direction of ESAC researchers*
  – *Funding of short (days) to large (months) stays of external collaborators working with ESAC researchers*
  – *Organization of mini-workshops (around 60 participants) on topics of general interest*