INAF

ISTITUTO NAZIONALE DI ASTROFISICA NATIONAL INSTITUTE FOR ASTROPHYSICS

SPACE ASTROPHYSICS

A LARGE FRACTION OF THE SCIENCE PROGRAMMES CARRIED OUT BY INAF **REQUIRES THE USE OF OBSERVATIONS FROM** SPACE. EXPLOITING THE COMPLEMENTARITY BETWEEN THE GROUND BASED AND SPACE BORN OBSERVATIONS HAS BECOME INDEED A COMMON PRACTICE IN MODERN ASTROPHYSICS AND COSMOLOGY

INAF MISSION

INAF PROMOTES, REALIZES AND COORDINATES RESEARCH ACTIVITIES IN ASTRONOMY, RADIO ASTRONOMY, SPACE ASTROPHYSICS AND COSMIC PHYSICS, IN CLOSE CONNECTION WITH RESEARCH PROGRAMMES OF THE EUROPEAN UNION AND OTHER INTERNATIONAL ORGANIZATIONS. INAF COLLABORATES BOTH WITH UNIVERSITIES AND WITH PUBLIC AND PRIVATE, NATIONAL AND INTERNATIONAL, ORGANIZATIONS.

HOW TO CONTACT INAF: TEL. +39.06.355.33.310 E_MAIL <u>inaf@inaf.it</u>

INAF: FUNDAMENTAL RESEARCH AND TECHNOLOGY DEVELOPMENT FOR A MORE COMPETITIVE COUNTRY

NOWADAYS THE CHALLENGE OF ASTROPHYSICAL RESEARCH IS A GLOBAL ONE AND ITS SPIN-OFFS FOR **TECHNOLOGY AND INDUSTRY ARE GLOBAL TOO.** GOOD SCIENCE PRODUCES GOOD RESULTS: ITALY IS THE FIFTH COUNTRY WORLDWIDE IN ASTROPHYSICS AND SPACE SCIENCE (SOURCE: ISI 2005) AND OUR HOME INDUSTRY TAKES PART IN INTERNATIONAL TENDERS, **GETTING EXCELLENT RESULTS.**



A "YOUNG" **INSTITUTE WITH A** LONG TRADITION

ALTHOUGH INAF WAS BORN ONLY 5 YEARS AGO, IT HAS INHERITED THE LONG HISTORY AND THE CULTURE OF ALL ITALIAN ASTRONOMICAL **OBSERVATORIES AND INSTITUTES OF** ASTROPHYSICS, GIVING THEM MORE STRENGTH AND INTERNATIONAL VISIBILITY.

THE NATIONAL INSTITUTE FOR ASTROPHYSICS, INAF, IS THE ITALIAN **RESEARCH INSTITUTION FOR ASTRONOMY AND ASTROPHYSICS.** THE HEADQUARTERS ARE IN ROME AND 19 ASTRONOMICAL OBSERVATORIES AND LABOR ATORIES ARE SPREAD ALL OVER THE COUNTRY. OVER 1000 STAFF PEOPLE WORK AT INAF, NEARLY 60% ARE RESEARCHERS. MOREOVER, ALSO ALL ITALIAN UNIVERSITY RESEARCHERS AND PROFESSORS OF ASTROPHYSICS BELONG TO INAF AS "ASSOCIATE RESEARCHERS"

NATIONAL FACILITIES OUTSIDE THE COUNTRY: TNG (GALILEO NATIONAL TELESCOPE) IN LAS CANARIAS ISLANDS, LBT (LARGE BINOCULAR TELESCOPE) IN ARIZONA (PARTNERSHIP WITH USA & GERMANY)



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PROADMAP FROM THE

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EXTREMELY LARGE **TELESCOPES**

THE INAF LONG TERM SCIENCE ROADMAP INCLUDES THE ENTIRE FIELD OF THE SCIENCE OF THE UNIVERSE, FROM **STUDIES ON THE SOLAR** SYSTEM TO OBSERVATIONAL AND THEORETICAL COSMOLOGY.

THE COMPLEXITY OF THE OBSERVED PHENOMENA AND THE NEED TO DEEPLY EXPLORE THE UNIVERSE **REQUIRES THE DEVELOPMENT OF MORE** AND MORE EFFECTIVE TELESCOPES AND, ABOVE ALL, ADVANCED TECHNOLOGY.

THE INNOVATIVE ADAPTIVE OPTICS TECHNOLOGY DEVELOPED BY INAF IS ESSENTIAL FOR THE FUTURE EXTREMELY LARGE TELESCOPES.

TWO SPIN-OFFS FOR THE APPLICATION OF THIS TECHNOLOGY TO BIOMEDICINE AND PRODUCTION OF CLEAN ENERGY HAVE ALSO BEEN SET UP.

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