

PROYECTOS PROGRAMA "ASTROFÍSICOS RESIDENTES 2024"

ESPECIALIDAD DE INVESTIGACION ASTROFISICA

| Nº | DIRECTOR/CO-DIRECTOR/TUTOR | TITULO PROYECTO |
|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| COSMOLOGY AND ASTROPARTICLES – COSMOLOGÍA Y ASTROPARTÍCULAS (DIRECTORES: DRA. ALICIA LÓPEZ ORAMAS Y DR. RICARDO T. GÉNOVA SANTOS) | | |
| 65 | Dr. Ricardo T. Génova Santos (Director) | "The LiteBIRD CMB mission. Calibration, instrument systematics and study of the impact of foreground contamination on the detection of primordial B-modes from inflation" |
| 57 | Dr. José Alberto Rubiño Martín (Director) | "Characterizing the radio emission from our Galaxy: clearing the path to inflation's B-modes and cosmological spectral distortions" |
| 35 | Dra. Josefa Becerra González (Directora) y Dr. J.A. Acosta Pulido (Co-Director) | "Exploring the extreme extragalactic gamma-ray sky through relativistic jets" |
| 33 | Dr. Carlos Hernández Monteagudo (Director) | "Constraining the cosmological chemical enrichment during the Dark Ages and the End of Reionization Era with observations of the Cosmic Microwave Background Radiation" |
| 29 | Dr. Juan Cortina Blanco (Director); Dra. Alicia López Oramas (Co-Directora) y Prof. Ramón García López (Tutor) | "Ultrahigh angular resolution at Roque de los Muchachos: zooming into stars and their surroundings" |
| 28 | Dra. Alicia López Oramas (Directora); Dr. Juan Cortina Blanco (Co-Director) y Prof. Ramon García López (Tutor) | "Extreme Universe: unveiling the Galactic very-high-energy gamma-ray sky" |
| 20 | Dr. Jorge Martin Camalich (Director) y Dra. Arianna di Cintio (Co-Directora) | "Tracing the properties of dark matter with stars at the centre of low-mass halos" |
| GALAXIES FORMATION AND EVOLUTION – FORMACIÓN Y EVOLUCIÓN DE GALAXIAS (DIRECTORES: DRA. ANNA FERRÉ MATEU Y DR. HELMUT DANNERBAUER) | | |
| 72 | Prof. John E. Beckman (Director) y Dra. Almudena Prieto (Co-Directora) | "Forming stars next to Super Massive Black Holes" |
| 70 | Dra. Begoña García Lorenzo (Directora) y Dra. Francesca Pinna (Co-Directora) | "Zooming in and out: the evolutionary connection between galactic nuclei at small scale and the global galaxy at larger scale" |
| 67 | Dra. Francesca Pinna (Directora) y Dr. Ignacio Martín Navarro (Co-Director) Dra. Annalisa Pillepich (AP, Max Planck Institute for Astronomy, Heidelberg)(Co-Directora) | "Uncovering the first stages of galaxy evolution: the formation of thick disks across environments in the full cosmological context" |
| 59 | Dr. Jorge Sanchez Almeida (Director) y Dr. Sebastian F. Sanchez (UNAM, Mex.) (Co-Director) | "Distinguishing star-forming galaxies from active galactic nuclei in high-redshift JWST spectra" |
| 58 | Dra. Carmen P. Padilla-Torres (Directora) y Dr. Jordi Cepa Nogué (Co-Director) | "The study of the population of low-mass galaxies at intermediate redshifts" |
| 31 | Dr. Jordi Cepa Nogué (Director) y Dra. Carmen Pilar Padilla Torres (Co-Directora) y Dr. Miguel Sánchez Portal (IRAM) | "The puzzle of (U)LIRG metallicity" |
| 54 | Dr. Helmut Dannerbauer (Director); Dr. Jose Manuel Pérez-Martínez (Co-Director) y | "Shedding light on the environmental evolution of galaxies in the early universe with JWST, ALMA, Euclid and SHARKS" |
| 53 | Dr. Alexandre Vazdekis (Director) y Dr. Rogérico Riffel (Co-Director) | "Shaping galaxies in the era of JWST: Near-Infrared stellar populations constraints to galaxy evolution models" |

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| 49 | Dr. Jairo Méndez-Abreu (Director) y Dra. Adriana de Lorenzo-Cáceres (Co-Directora) | "Deconstructing Galaxies in Space and Time" |
| 48 | Dra. Anelise Audibert (Directora) y Dra. Cristina Ramos Almeida (Co-Directora) | "ALMA+JWST multiphase view of AGN feeding and feedback in GATOS galaxies" |
| 46 | Dra. Cristina Ramos Almeida (Directora) y Dr. José Antonio Acosta Pulido (Co-Director) | "Searching for direct evidence of positive and negative quasar feedback using Keck and JWST observations" |
| 45 | Dr. Marc Huertas-Company (Director) | "The connection between star formation and morphology with Foundational Artificial Intelligence" |
| 41 | Dr. Ignacio Martín Navarro (Director) | "Variations in the initial mass function of young stellar populations" |
| 37 | Dra. Casiana Muñoz-Tuñón (Directora) y Dr. J. Alfonso López Aguerri (Co-Director) | "Star Formation Near and Far: A case for high-spectral resolution spectroscopy" |
| 32 | Dra. Adriana de Lorenzo-Cáceres Rodríguez (Directora) y Dra. Begoña García Lorenzo (Co-Directora) | "The elusive art of feeding discrete supermassive black holes" |
| 26 | Dr. Jesús Falcón Barroso (Director); Dr. Alexandre Vazdekis (Co-Director) y Dr. Javier Cenarro Lagunas (CEFA) (Co-Director) | "Stellar Populations of Galaxies in 3D" |
| 14 | Dra. Anna Ferré Mateu (Directora) y Dra. Chiara Spiniello (Co-Director) | "Relics, young nuggets and late bloomers. How and why do ultra-compact galaxies exist?" |
| 13 | Dr. Ignacio Trujillo Cabrera (Director) | "Understanding how the edge of galaxies moves over time" |
| 9 | Prof. Johan H. Knapen (Director) y Dr. Sébastien Comerón (Co-Director) | "Probing the circumnuclear medium in AGN and starbursts at scales smaller than 100 pc with MUSE AO-assisted integral field spectroscopy" |
| 8 | Dr. Sébastien Comerón (Director) y Prof. Joahn H. Knapen (Co-Director) | "The evolution of thick discs seen in deep HST and JWST imaging" |
| <p>STELLAR AND INTERSTELAR PHYSICS – FÍSICA ESTELAR E INTERESTELAR (DIRECTORES: DR. SERGIO SIMON DÍAS Y DRA. SAVITA MATHUR)</p> | | |
| 90 | Dr. David Aguado (Director) y Dr. Jonay I. González Hernández (Co-Director) | "Revealing the Early Galaxy: search and characterization of the most primitive stars" |
| 89 | Dr. Carlos Allende Prieto (Director) y Dr. David Aguado | "Uncovering the relics of the Milky Way formation with the Dark Energy Spectroscopic Instrument" |
| 62 | Dr. Paul Beck (Director) y Dra. Ana Escorza Santos (Co-Directora) | "Oscillating Red Giants in binary systems: testing benchmark objects for stellar-evolutionary and mass-transfer models" |
| 39 | Dr. Sergio Simón Díaz (Director) y Dr. Yeisson Osorio (Co-Director) | "Improving the reliability of surface abundance determinations in OB stars" |
| 36 | Dr. Domingo Anibal García Hernández (Director) y Dr. Ransel Barzaga Guzmán (Co-Director) | "Quantum-chemistry simulations of fullerene- and graphene-based nanostructures of astrophysical interest" |
| 23 | Dr. David Jones (Director) | "Using planetary nebulae to understand the common-envelope phase of binary evolution" |
| 19 | Dr. César Esteban López (Director) y Dr. Jorge García Rojas (Co-Director) | "Unveiling the chemical properties of planetary nebulae through deep optical spectrophotometry" |

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| 16 | Dr. Nicolas Lodieu (Director); Dr. Richard Smart (Torino, IT) (Co-Director) y Dr. Bartosz Gauza (University of Zielona Gora, POL) (Co-Director) | "Origins of ultracool low mass objects and brown dwarfs from rotation rates" |
| 12 | Dr. Arturo Manchado (Director) y Dra. Eva Villaver (Co-Directora) | "The contribution of molecular hydrogen to the baryonic matter of the universe" |
| 226 | Dr. Michael Abdul-Masih (Director) y Dr. Sergio Simón Díaz (Co-Director) | "The impact of rapid rotation the spectroscopic modelling of massive stars" |
| EXOPLANETARY SYSTEMS AND SOLAR SYSTEM – SISTEMAS EXOPLANETARIOS Y SISTEMA SOLAR (DIRECTORES: DR. JUAN A. BELMONTE AVILÉS Y DR. JONAY I. GONZÁLEZ HERNÁNDEZ) | | |
| 66 | Dr. Hannu Parviainen (Director) y Dr. Hans Deeg (Co-Director) | "Exoplanet candidate vetting using modern machine learning methods" |
| 44 | Dr. Hans Deeg (Director) y Dr. Hannu Parviainen (Co-Director) | "Populations of Extrasolar Planet Systems" |
| 55 | Dr. Felipe Murgas (Director) y Dr. Enric Pallé (Co-Director) | "Searching and characterizing earth-like planets with TESS+MuSCAT2 and CARMENES+ESPRESSO" |
| 51 | Dr. Víctor Sánchez Bejar (Director) y Dr. Nícolas Lodieu (Co-Director) | "Validation and mass determination of young transiting planets" |
| 38 | Dr. Enric Pallé (Director) | "High-resolution spectroscopy of exoplanet atmospheres in the era of JWST" |
| 34 | Dra. Julia de Leon (Directora) y Dr. Marcel Popescu (Astronomical Institute of the Romanian Academy, Romania) (Co-Director) | "Characterization of asteroid Didymos with data from the ESA Hera spacecraft" |
| 27 | Dr. Javier Licandro (Director) | "Small Near-Earth Asteroids: Discovery and physical characterization using ATLAS-Teide and Canary Islands Observatories" |
| 18 | Dr. Nicolas Lodieu (Director) Dr. Jeff Kuhn (Co-Director) | "Modeling and computing the exoplanet yield from the next generation of large ground-based telescopes" |
| SOLAR PHYSICS – FÍSICA SOLAR (DIRECTORAS: DRA. ELENA KHOMENKO Y DRA. M^a JESÚS MARTÍNEZ GONZÁLEZ) | | |
| 40 | Dr. Manuel Collados Vera (Director) y Dra. Elena Khomenko (Co-Directora) | "A systematic search for observational confirmation of partial ionization effects in the Sun" |
| 11 | Dr. Tobias Felipe (Director) y Dr. Christoph Kuckein (Co-Director) | "On the nature of solar magnetic bright points" |
| MILKY WAY AND LOCAL GROUP – VÍA LÁCTEA Y EL GRUPO LOCAL (DIRECTORES: DR. CÉSAR ESTEBAN LÓPEZ Y DRA. CARME GALLART GALLART) | | |
| 73 | Dr. Guillaume Thomas (Director) y Dra. Giuseppina Battaglia (Co-Directora) | "Exploring the structure of the Milky Way stellar halo with state-of-the-art large scale surveys" |
| 64 | Dra. Giuseppina Battaglia (Directora) y Dr. Guillaume Thomas (Co-Director) | "Investigations of dark matter halo properties of Local Group dwarf galaxies in the Gaia and WEAVE era" |
| 52 | Dra. Carme Gallart (Directora); Dra. Emma Fernández-Alvar (Co-Directora) y Dr. Tomas Ruiz-Lara (Co-Director) | "Unraveling the formation and evolution of the Milky Way disk with Gaia" |

PROYECTOS PROGRAMA "ASTROFÍSICOS RESIDENTES 2024"**ESPECIALIDAD DE INSTRUMENTACIÓN ASTROFÍSICA****Los tiene que ver el Coordinador de Instrumentación, y tiene que ver con respecto a los de LIOM si hay overlap**

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|----|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 61 | Dr. Roberto López López | "Development of a coronagraph to study the use of active digital masks" |
| 24 | Prof. Francisco Sánchez Martínez (Director) y Co-Directores todos los Coordinadores de Instrumentación | "Del Puente de Winston al GTC y Más Allá" |