

ANEXO VII LISTADO DE PROYECTOS DE TESIS

PROYECTOS RESIDENTES 2020		
ESPECIALIDAD DE INVESTIGACION ASTROFISICA		
Nº	SUPERVISOR/ES	TITULO PROYECTO
1	<i>Director:</i> Francisco-Shu Kitaura Joyanes <i>Co-Director:</i> Andrés Balaguera-Antolínez <i>Tutor:</i> Marc Huertas-Company	Cosmology from Big Data of the large scale structure
2	<i>Director:</i> Sergio Simón-Díaz <i>Tutor:</i> Artemio Herrero Davó	On the evolutionary nature of massive B-type supergiants: a modern empirical reappraisal using data from IACOB, Gaia and TESS
3	<i>Director:</i> Nicolas Lodieu	Exoplanets in young clusters and moving groups
4	<i>Directora:</i> Giuseppina Battaglia <i>Co-Directora:</i> Ana Monreal Ibero <i>Tutor:</i> Artemio Herrero Davo	Paving the way for next generation spectroscopic studies of resolved stellar populations in and beyond the Local Group
5	<i>Directora:</i> Ana Monreal-Ibero <i>Co-Directora:</i> Begoña García Lorenzo <i>Tutora:</i> María Jesús Arévalo Morales	In-depth study of local (Ultra)luminous Infrared Galaxies with MUSE as benchmark for high-z starburst galaxies
6	<i>Directora:</i> Cristina Ramos Almeida <i>Tutor:</i> José Antonio Acosta Pulido	The impact of AGN feedback in galaxy evolution
7	<i>Director:</i> Ignacio Trujillo Cabrera	A fresh view to the dwarf galaxies problem
8	<i>Director:</i> Jordi Cepa <i>Co-Directores:</i> Ana María Pérez García, Ricardo M. Pérez Martínez	Evolution of obscured Super Massive Black Holes and their host galaxies along the cosmic time
9	<i>Directores:</i> Javier Trujillo Bueno, Andrés Asensio Ramos y Sara Esteban Pozuelo	The Magnetic Fields of Solar Coronal Loops
10	<i>Director:</i> Ignacio Martín Navarro <i>Co-Director:</i> Jesús Falcón Barroso <i>Tutor:</i> Jesús Falcón Barroso	Probing the extremes of black hole feedback through stellar populations analyses
11	<i>Directora:</i> Begoña García Lorenzo <i>Co-Directora:</i> Cristina Ramos Almeida	Why do large-scale almost-identical galaxies differ in nuclear activity?
12	<i>Director:</i> Ramón García López <i>Co-Directora:</i> Alicia López Oramas	The Galactic gamma-ray sky
13	<i>Director:</i> Tobías Felipe <i>Co-Director:</i> Andrés Asensio Ramos	Inference of sunspot interiors with Deep Learning
14	<i>Director:</i> Francisco Garzón <i>Co-Directora:</i> Alyna Streblyanska	GALEP, a survey of the Galactic plane with EMIR
15	<i>Director:</i> Pablo Rodríguez Gil <i>Co-Director:</i> Manuel Ángel Pérez Torres	Indirect insights into orbital parameters of low-mass X-ray binary transients



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16	<i>Director:</i> Johan Knapen <i>Co-Director:</i> Sebastien Comerón	Understanding gas flows in AGN and starbursts
17	<i>Directora:</i> Savita Mathur <i>Co-Director:</i> Rafael A. García <i>Tutor:</i> Pere L. Pallé	Galacto-Archeology with asteroseismic analysis of Kepler, K2, and TESS missions
18	<i>Director:</i> Carlos Allende Prieto <i>Co-Director:</i> Jonay I. González Hernández	The metal-poor end of the Galactic Halo: characterization of extremely iron-poor stars using high-resolution spectroscopy
19	<i>Director:</i> Andrés Asensio Ramos y Iñigo Arregui	Diagnostics of the solar corona with new generation inversion tools
20	<i>Directora:</i> Almudena Prieto	The nearest Supermassive Black Holes: approaching their radius of influence
21	<i>Director:</i> Felipe Murgas <i>Co-Director:</i> Enric Pallé	High-resolution spectroscopy of exoplanet atmospheres in the era of TESS
22	<i>Director:</i> Marc Balcells	Near-infrared view of dusty centres of galaxies
23	<i>Director:</i> Ovidiu Vaduvescu <i>Co-Director:</i> Marcel Popescu	Physical Properties of Near Earth Asteroids
24	<i>Director:</i> Jesús Falcón Barroso <i>Co-Director:</i> Marc Huertas-Company	Unveiling the mass assembly of galaxies coupling artificial intelligence and orbital decomposition methods
25	<i>Directora:</i> Josefa Becerra González <i>Co-Directores:</i> Ramón J. García López y José A. Acosta Pulido	Exploring the extreme extragalactic gamma-ray sky through blazars
26	<i>Director:</i> Alexandre Vazdekis <i>Co-Director:</i> Carlos Allende Prieto	Stellar population models with varying abundances to determine the formation time scales of small and big galaxies
27	<i>Director:</i> Hans Deeg <i>Co-Director:</i> Hannu Parviainen	Populations of Extrasolar Planet Systems
28	<i>Director:</i> Tanausú del Pino Alemán <i>Co-Director:</i> M ^a Jesús Martínez González y Jiri Stepán	Three-dimensional Inversions of chromospheric structures
29	<i>Director:</i> Jorge Martin Camalich <i>Co-Director:</i> Paul Beck	Search of Ultra-Light Dark Matter at the Tip of the Red Giant Branch



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30	Directora: Casiana Muñoz Tuñón Co-Directora: José Miguel Rodríguez Espinosa	High-z Star Forming Galaxies from Surveys
31	Directora: Cecilia Fariña Co-Directora: Casiana Muñoz Tuñón	Exploring the feedback mode in Starburst Galaxies
32	Director: José Miguel Rodríguez Espinosa Co-Directora: Miguel Mas Hesse (CAB) Tutora: Casiana Muñoz Tuñón	Unveiling the history of re-ionisation of the Universe
33	Director: Hannu Parviainen Co-Directora: Enric Palle	Search of exoplanets around ultra-cool stars from TESS FFI light curves
34	Director: Jonay I. González Hernández Co-Directora: Rafael Rebolo López	Mass and density of rocky planets with ESPRESSO
35	Director: Helmut Dannerbauer Co-Directora: José Miguel Rodríguez Espinosa	Impact of environment on molecular gas reservoirs probed in distant cluster and field galaxies
36	Directora: Julia de León Cruz Co-Directora: Eri Tatsumi	Exploiting the near-ultraviolet region as a potential diagnostic tool for composition of primitive asteroids
37	Director: Carlos M. Gutiérrez	A panchromatic approach to the dust content of galaxy clusters
38	Directora: Carme Gallart Co-Directora: Tomás Ruíz-Lara	Unraveling the formation and evolution of the MW disk(s) with Gaia
39	Director: Ricardo Génova-Santos Co-Directora: José Alberto Rubiño-Martín	Precision cosmology using the Cosmic Microwave Background and its correlation with the large-scale structure of the Universe
40	Directora: Arianna Di Cintio Co-Directora: Chris Brook Tutora: Carme Gallart	Local Group simulations with Black Holes feedback: detailed analysis and comparison with ongoing and upcoming surveys
41	Director: Chris Brook Co-Directora: Arianna Di Cintio	Exploring the low surface brightness universe with simulations: confronting cosmology's small scale problems
42	Director: Claudio Dalla Vecchia Co-Directora: Chris Brook Tutora: Giuseppina Battaglia	From Parsecs to Gigaparsecs: Implementing star Formation and Feedback on different scales within Cosmological Simulations
43	Director: Michael Beasley Co-Directora: Ignacio Martín Navarro Tutor: Ignacio Martín Navarro	Unravelling the formation histories of massive galaxies with globular clusters

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44	<i>Director:</i> Andrés Balaguera-Antolínez <i>Co-Director:</i> Francisco-Shu Kitaura Joyanes <i>Tutor:</i> José Alberto Rubiño	Towards precision cosmology with fast and accurate galaxy mock catalogs
45	<i>Director:</i> Jorge Sánchez Almeida <i>Co-Director:</i> Claudio Dalla Vecchia	Cosmological gas fueling star-formation
46	<i>Director:</i> András Kovács <i>Tutor:</i> Francisco-Shu Kitaura	The imprint of cosmic voids in the Cosmic Microwave Background: from simulations to big galaxy surveys
47	<i>Director:</i> Claudio Dalla Vecchia <i>Co-Director:</i> Jorge Sánchez Almeida <i>Tutor:</i> Chris Brook	Constraints on the Observability of the warm-hot intergalactic medium through emission lines
48	<i>Director:</i> Marc Huertas-Company <i>Co-Director:</i> Johan Knapen <i>Tutor:</i> Ignacio Trujillo Cabrera	Unveiling the low surface brightness universe with deep learning, from HSC toLSST
49	<i>Director:</i> Fernando Moreno Inertis <i>Co-Director:</i> Daniel Nóbrega Siverio	A realistic study of shock fronts in the solar atmosphere Speciality: Research in Astrophysics
50	<i>Director:</i> Manuel Ángel Pérez Torres y Jorge Casares	The mass spectrum of stellar black holes in the Galaxy
51	<i>Director:</i> Jonay I. González Hernández	Detection and characterization of Earth-like planets in the habitable zone of K and M-dwarfs with ESPRESSO

PROYECTOS ESPECIALIDAD INSTRUMENTACIÓN ASTROFISICA 2020		
Nº	SUPERVISOR/ES	TITULO PROYECTO
1	Director: Hugo García Vázquez Co-Directores: Luis Fernando Rodríguez Ramos y José Javier Díaz García Tutor: Luis Fernando Rodríguez Ramos	Contributions to the design of integrated circuits for detector interfaces used in astrophysical instrumentation
2	Director: Jorge Sánchez-Capuchino Revuelta	Design and manufacturing of freeform achromatic lenses doublets