



DEPARTAMENTO DE FÍSICA TEÓRICA

**MEMORIA DE INVESTIGACIÓN
2021**

MEMORIA DE INVESTIGACIÓN DEL DEPARTAMENTO DE FÍSICA TEÓRICA 2021

El presente documento tiene como objetivo recoger los resultados de la investigación realizada a lo largo de 2021 por los profesores e investigadores del Departamento de Física Teórica de la Facultad de Ciencias de la Universidad Autónoma de Madrid. Recogiendo las publicaciones, las tesis doctorales, tanto dirigidas como tutorizadas por el PDI del Departamento, los proyectos de Investigación en los que participa, ayudas individuales, patentes, premios y los grupos de investigación reconocidos por la UAM en los que participan.

La Memoria se basa en los perfiles personales del PDI del Departamento, que figuran en el Portal de producción científica de la UAM, al tiempo que se verifica esta información, la Biblioteca actualiza y completa dichos perfiles individuales. Esta memoria ha sido realizada por la Biblioteca de Ciencias contando con las aportaciones facilitadas por los integrantes del departamento, Coordinadores de los grupos de investigación y por el Decanato de la Facultad, a quienes agradecemos enormemente sus valiosas aportaciones.

INVESTIGADORES	491 PDI PERMANENTE	Edad y Género del PDI 35-44 años 45-54 años 55-64 años 65 ó + años HOMBRES MUJERES	106 CATEDRÁTICOS 237 TITULARES 148 CONTR. DOCTORES
	453 PDI NO PERMANENTE	180 PDI Doctor no permanente 249 Personal Investigador en Formación 24 Profesores Eméritos	
	96 NUEVOS SEXENIOS DE INVESTIGACIÓN CONCEDIDOS EN 2021		
PROYECTOS Y TRANSFERENCIA	484 PROYECTOS DE I+D+I VIGENTES	24 PATENTES	5 EBC activas
TESIS DOCTORALES	200 TESIS DOCTORALES	FACULTAD DE CIENCIAS 2021	
PUBLICACIONES	COLABORACIÓN EN LA AUTORIA DE ARTÍCULOS UAM 9% NACIONAL 28% INTERNACIONAL 63%	1.722 PUBLICACIONES 1.554 ARTÍCULOS	66% ARTÍCULOS Q1 (JCR)
	894 Artículos en OA	ARTÍCULOS EN ACCESO ABIERTO abierto 58% cerrado 42%	71% Artículos OA en Repositorio Institucional

INVESTIGADORES	25 PDI PERMANENTE	EDAD Y GÉNERO DEL PDI 35-44 AÑOS 45-54 AÑOS 55-64 AÑOS 65 Ó + AÑOS HOMBRES MUJERES	8 CATEDRÁTICOS
	64 PDI NO PERMANENTE	15 PDI Doctor no permanente 43 Personal Investigador en Formación 6 Profesores Eméritos	9 TITULARES
	2 NUEVOS SEXENIOS DE INVESTIGACIÓN CONCEDIDOS EN 2021		
PROYECTOS	36 PROYECTOS I+D+I VIGENTES		
TESIS DOCTORALES	17 TESIS DOCTORALES	DEPARTAMENTO DE FÍSICA TEÓRICA 2021	
PUBLICATIONES	COLABORACIÓN EN LA AUTORIA DE ARTÍCULOS NACIONAL 8% UAM 2% INTERNACIONAL 91%	398 PUBLICACIONES	73% ARTÍCULOS Q1 (JCR)
	277 Artículos en OA	ARTÍCULOS EN ACCESO ABIERTO abierto 74% cerrado 26%	
		69% Artículos OA en Repositorio Institucional	

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1. TABLAS

1.1. Tabla de Publicaciones

AÑO	Total publicaciones	Nº Artículos	Q1	% Q1	Publicaciones/PDI permanente
Departamento de Física Teórica					
2021	398	373	272	72,92%	15,92
2020	382	359	275	76,60%	11,94
2019	423	389	371	95,37%	13,22
2018	231	217	208	95,85%	7,22
2017	216	198	171	86,36%	7,71
2016	428	401	328	81,80%	15,29
FACULTAD DE CIENCIAS					
2021	1.722	1.554	1.033	66,47%	3,51
2020	1.680	1.524	926	60,76%	3,40
2019	1.648	1.445	1.188	82,21%	3,36
2018	1.504	1.292	1.056	82,00%	2,86
2017	1.104	1.104	807	73,10%	2,19
2016	1.598	1.403	1.025	73,06%	3,12

1.2. Tabla de Proyectos de Investigación y Contratos con empresas

		TIPO DE FINANCIACIÓN		ENTIDADES FINANCIADORAS				
	Vigentes	PÚBLICA	PRIVADA	Ministerio	UE	CAM	UAM	otros
FT	36	34	2	16	8	4	6	0
FACULTAD	484	432	52	243	64	58	51	16

1.3. Tabla de Tesis Doctorales

DEPARTAMENTO	2021				
	TESIS DEFENDIDAS			GÉNERO	
	Total	Dirigidas	Tutorizadas	HOMBRES	MUJERES
FISICA TEORICA	17	9	8	13	4
TOTAL	200	83	117	103	97

2. METODOLOGÍA Y FUENTES

La Biblioteca de Ciencias elabora la Memoria de Investigación de la Facultad de Ciencias, extrayendo la información de distintas herramientas, que se relacionan en el apartado Fuentes. El [Portal de Producción Científica](#) (PPC), donde está recogido todo el personal docente e investigador permanente y la mayoría del PDI no permanente, es nuestro principal proveedor de datos.

Tras un proceso de verificación y depuración de la información, generamos una primera versión de datos, que remitimos a los directores de los 17 departamentos para su revisión en junio de 2022.

Los Departamentos, nos envían modificaciones, correcciones o nuevas incorporaciones que son revisadas y validadas, añadiéndose a la versión final, junto con las nuevas publicaciones detectadas por la Biblioteca. Todas estas modificaciones, que aparecerán en la versión final de la Memoria de Investigación, se incluyen en el PPC de la UAM, lo que supone una mejora de la información contenida en los perfiles individuales del PDI de la Facultad.

Finalizada la revisión, analizamos los datos relativos a indicios de calidad de los artículos, incorporándolos al presente documento.

Los indicios de calidad de los artículos Proceden de la base de datos Journal Citations Report (JCR).

Por primera vez, incluimos datos de acceso abierto a los artículos de investigación, el dato de acceso abierto en repositorio institucional corresponde a 31-10-2022, aunque la biblioteca continúa trabajando en su incorporación

En enero de 2022, la Agencia Nacional de Evaluación de la Calidad y Acreditación (ANECA), recomienda por primera vez, para la evaluación de la actividad investigadora, que los artículos sometidos a evaluación estén incluidos en los repositorios universitarios, como es el caso de [Biblos-e Archivo](#). Y lo reitera en el documento de "[Principios y directrices para la actualización de criterios de evaluación de la investigación de ANECA 2021](#)". Cuya directriz nº13 sobre los estándares e indicadores para la evaluación cualitativa de la producción científica, dice:

“Se recomienda que tanto las aportaciones presentadas para obtener el sexenio de investigación como las 4 aportaciones relevantes que deben identificarse en ACADEMIA estén depositadas en un repositorio con Green Open Access como los repositorios institucionales de los que disponen las universidades. En el futuro será obligatorio, salvo impedimento legal o imposibilidad técnica, este depósito para todas las aportaciones mencionadas.” Por este motivo, la Biblioteca de Ciencias ha hecho un gran esfuerzo de inclusión en el Repositorio institucional de artículos publicados por investigadores de Ciencias. Solo se han incluido artículos en los que los firmantes se indentifican como miembros de la Universidad Autónoma de Madrid.

A fin de facilitar la comprensión de los datos globales, acompañamos tablas y gráficos. Se incluyen tablas comparativas de los últimos años relativas a los distintos apartados, reflejando los datos de cada Departamento, y de la media de la Facultad.

Finalmente, se recoge un resumen en fichas, de la Facultad y de los distintos departamentos, con los principales hitos que recoge la presente Memoria.

FUENTES UTILIZADAS

- Para las publicaciones
 - Portal de Producción Científica de la UAM [IMarina]
 - Revisión facilitada por los Departamentos
 - Bases de datos: WoS, Scopus, Pubmed y Dialnet.
 - A petición de algunos Departamentos, se han incorporado publicaciones de profesores e investigadores no presentes en el Portal de Producción Científica de la UAM.
 - Repositorio institucional de la UAM [Biblos-e Archivo](#), para acompañar al artículo del enlace permanente (Handle), que nos sirve para confirmar que el artículo final o la versión aceptada y revisada por pares está en acceso abierto.

- Para los indicios de calidad.
 - Se utilizan los indicadores de factor de impacto de las publicaciones JCR (WoS) del año 2021.

- Para los investigadores
 - Portal de Producción Científica de la UAM, con datos procedentes de la base de datos HOMINIS.
 - La identificación del PDI permanente se ha hecho atendiendo a las categorías seleccionadas por el Decanato de la Facultad de Ciencias: Catedrático, Profesor Titular y Profesor Contratado Doctor.
 - Para PDI no permanente, Doctor y en Formación, se ha utilizado la información procedente del Portal de Producción Científica. Organizado de la siguiente manera
 - PDI Doctor no permanente:
 - Profesor Contratado Doctor Interino
 - Profesor Titular de Universidad Interino
 - Profesor Ayudante Doctor
 - Ramón y Cajal
 - Otros Contratos Postdoctorales: Atracción de Talento modalidades CAM 1 y 2, postdoc CAM, Juan de la Cierva (incorporación/formación)
 - Personal Investigador en Formación (PIF)
 - Ayudantes
 - Contratados predoctorales (Ley de la Ciencia artículo 21): FPI, FPU, FPI-UAM
 - Otros contratados predoctorales: predoctorales CAM, Ayudantes de Investigación.
 - Para los Profesores eméritos se ha utilizado la información procedente del Vicerrectorado de Personal Docente e Investigador
 - A petición de algunos Departamentos, se ha incorporado Personal Investigador en Formación no presente en el Portal de Producción Científica de la UAM

- Para los Proyectos de investigación y contratos con empresas
 - Portal de Producción Científica de la UAM

- Cotejo con los distintos boletines oficiales: BOE, BOCAM
- Revisión facilitada por los Departamentos
- Los contratos con empresas son facilitados por los Departamentos
- Para las Tesis Doctorales
 - Sistema integrado de Gestión Bibliotecaria, al ser la Biblioteca de Ciencias depositaria de todas las tesis doctorales leídas en la Facultad de Ciencias.
 - Escuela de Doctorado, para completar información relativa a los planes de los programas de doctorado
 - Repositorio Institucional que aporta enlace permanente (handle)
 - Revisión facilitada por los Departamentos, para tesis no leídas en la UAM.
- Para los Grupos de Investigación
 - Página Web de la UAM
 - Revisión facilitada por los Coordinadores de los Grupos de Investigación
- Para las Patentes, Empresas Basadas en el Conocimiento y Sexenios
 - Portal de Producción Científica de la UAM
 - Servicio de gestión integral de la investigación, Área de Investigación y Transferencia
 - Revisión facilitada por los Departamentos

3.PUBLICACIONES

El Departamento ha presentado 398 publicaciones, de las que 373 son artículos científicos. De éstos, un total de 272 se han publicado en revistas del primer cuartil, que corresponde al 73% de los artículos publicados. El 23% de las publicaciones de la Facultad de Ciencias han sido firmadas por PDI del Departamento

Dónde publica el Departamento

Las revistas en que se han publicado un mayor número de artículos son:

TÍTULO DE REVISTAS	Nº ART.	CUARTILES
JOURNAL OF HIGH ENERGY PHYSICS	69	Q1
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY	69	Q1
PHYSICAL REVIEW D	42	Q1
EUROPEAN PHYSICAL JOURNAL C	40	Q2
PHYSICAL REVIEW C	20	Q2

Relación de Publicaciones de la Facultad, ordenadas alfabéticamente por autor

Leyenda de cuartiles de JCR 2021 [Q1] [Q2] [Q3] [Q4] [sin FI]

Artículos

1. Aaboud, M.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Measurement of the relative $B_c^{+/-}/B^{-+/-}$ production cross section with the ATLAS detector at $\sqrt{s}=8$ TeV. *Physical Review D*. 104 (1): 012010. DOI: 10.1103/PhysRevD.104.012010
[Q1]
2. Aaboud, M.; ... Barreiro, F.; Calvente López, S.; Cueto, A.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). A search for the dimuon decay of the Standard Model Higgs boson with the ATLAS detector. *Physics Letters B*. 812: 135980. DOI: 10.1016/j.physletb.2020.135980
<http://hdl.handle.net/10486/702291> *Open Access [Q1]
3. Aaboud, M.; ... Barreiro, F.; Calvente López, S.; Cueto, A.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Measurement of the associated production of a Higgs boson decaying into b-quarks with a vector boson at high transverse momentum in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. *Physics Letters B*. 816: 136204. DOI: 10.1016/j.physletb.2021.136204
*Open Access [Q1]
4. Aaboud, M.; ... Barreiro, F.; Calvente López, S.; Cueto, A.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Measurement of the jet mass in high transverse momentum $Z \rightarrow b(\bar{b})\gamma$ production at $\sqrt{s}=13$ TeV using the ATLAS detector. *Physics Letters B*. 812: 135991. DOI: 10.1016/j.physletb.2020.135991
<http://hdl.handle.net/10486/702290> *Open Access [Q1]
5. Aaboud, M.; ... Barreiro, F.; Calvente López, S.; Cueto, A.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Measurements of WH and ZH production in the $H \rightarrow b\bar{b}$ decay channel in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. *European Physical Journal C*. 81 (2): 178. DOI: 10.1140/epjc/s10052-020-08677-2
<http://hdl.handle.net/10486/701507> *Open Access [Q2]
6. Aaboud, M.; ... Barreiro, F.; Calvente López, S.; Cueto, A.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Measurements of $W^+W^- + \geq 1$ jet production cross-sections in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. *Journal of High Energy Physics*. 6: 3. DOI: 10.1007/JHEP06(2021)003
<http://hdl.handle.net/10486/701682> *Open Access [Q1]
7. Aaboud, M.; ... Barreiro, F.; Calvente López, S.; Cueto, A.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Observation of photon-induced W^+W^- production in pp collisions at $\sqrt{s}=13$ TeV using the ATLAS detector. *Physics Letters B*. 816: 136190. DOI: 10.1016/j.physletb.2021.136190
<http://hdl.handle.net/10486/702292> *Open Access [Q1]
8. Aaboud, M.; ... Barreiro, F.; Calvente López, S.; Cueto, A.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Search for dark matter in association with an energetic photon in

pp collisions at root s=13 TeV with the ATLAS detector. Journal of High Energy Physics. 2: 226. DOI: 10.1007/JHEP02(2021)226
<http://hdl.handle.net/10486/704608> *Open Access [Q1]

9. Aaboud, M.; ... Barreiro, F.; Calvente López, S.; Cueto, A.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Search for doubly and singly charged Higgs bosons decaying into vector bosons in multi-lepton final states with the ATLAS detector using proton-proton collisions at root s=13 TeV. Journal of High Energy Physics. 6: 146. DOI: 10.1007/JHEP06(2021)146
*Open Access [Q1]

10. Aad G; ... Álvarez Estévez M; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Príncipe Martín, MA.; Terrón, J.; ... ATLAS COLLABORATION (2021). Search for chargino–neutralino pair production in final states with three leptons and missing transverse momentum in $\sqrt{s}=13$ TeV pp collisions with the ATLAS detector. European Physical Journal C. 81 (12): 1118. DOI: 10.1140/epjc/s10052-021-09749-7
<http://hdl.handle.net/10486/704415> *Open Access [Q2]

11. Aad G; ... Álvarez Estévez M; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS COLLABORATION (2021). Search for squarks and gluinos in final states with one isolated lepton, jets, and missing transverse momentum at root s=13 with the ATLAS detector. European Physical Journal C. 81 (7): 600. DOI: 10.1140/epjc/s10052-021-09344-w
<http://hdl.handle.net/10486/704629> *Open Access [Q2]

12. Aad, G.; ... Estévez, M.A.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; ... ATLAS Collaboration (2021). Configuration and performance of the ATLAS b-jet triggers in Run 2. European Physical Journal C. 81 (12): 1087. DOI: 10.1140/epjc/s10052-021-09775-5
<http://hdl.handle.net/10486/704411> *Open Access [Q2]

13. Aad, G.; ... Estévez, M.A.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; ... ATLAS Collaboration (2021). Muon reconstruction and identification efficiency in ATLAS using the full Run 2 pp collision data set at $\sqrt{s}=13$ TeV. European Physical Journal C. 81 (7): 578. DOI: 10.1140/epjc/s10052-021-09233-2
<http://hdl.handle.net/10486/704626> *Open Access [Q2]

14. Aad, G.; ... Estévez, M.A.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; ... ATLAS Collaboration (2021). Search for R-parity-violating supersymmetry in a final state containing leptons and many jets with the ATLAS experiment using root s=13 TeV proton-proton collision data. European Physical Journal C. 81 (11): 1023. DOI: 10.1140/epjc/s10052-021-09761-x
<http://hdl.handle.net/10486/704433> *Open Access [Q2]

15. Aad, G.; ... Estévez, M.A.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Príncipe Martín, M.A.; Terrón, J.; ... ATLAS Collaboration (2021). Measurement of the production cross section of pairs of isolated photons in pp collisions at 13 TeV with the ATLAS detector. Journal of High Energy Physics. 11: 169. DOI: 10.1007/JHEP11(2021)169
*Open Access [Q1]

16. Aad, G.; ... Estévez, M.A.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Príncipe Martín, M.A.; Terrón, J.; ... ATLAS Collaboration (2021). Measurement of the $t\bar{t}$ production cross section in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. *Journal of High Energy Physics*. 11: 118. DOI: 10.1007/JHEP11(2021)118

*Open Access [Q1]

17. Aad, G.; ... Estévez, M.A.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Príncipe Martín, M.A.; Terrón, J.; ... ATLAS Collaboration (2021). Search for dark matter produced in association with a Standard Model Higgs boson decaying into b-quarks using the full Run 2 dataset from the ATLAS detector. *Journal of High Energy Physics*. 11: 209. DOI: 10.1007/JHEP11(2021)209

*Open Access [Q1]

18. Aad, G.; ... Estévez, M.A.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Príncipe Martín, M.A.; Terrón, J.; ... ATLAS Collaboration (2021). Search for exotic decays of the Higgs boson into long-lived particles in pp collisions at $\sqrt{s}=13$ TeV using displaced vertices in the ATLAS inner detector. *Journal of High Energy Physics*. 11: 229. DOI: 10.1007/JHEP11(2021)229

*Open Access [Q1]

19. Aad, G.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Hu, YF.; Terrón, J.; ... ATLAS Collaboration (2021). Measurement of the CP-violating phase ϕ_s in $B_s^0 \rightarrow J/\psi \phi$ decays in ATLAS at 13 TeV. *European Physical Journal C*. 81 (4): 342. DOI: 10.1140/epjc/s10052-021-09011-0

<http://hdl.handle.net/10486/701504> *Open Access [Q2]

20. Aad, G.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Jenni, P.; Terrón, J.; ... ATLAS Collaboration (2021). Search for bottom-squark pair production in pp collision events at $\sqrt{s}=13$ TeV with hadronically decaying τ -leptons, b-jets, and missing transverse momentum using the ATLAS detector. *Physical Review D*. 104 (3): 032014. DOI: 10.1103/PhysRevD.104.032014

[Q1]

21. Aad, G.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Jenni, P.; Terrón, J.; ... ATLAS Collaboration (2021). Search for new phenomena in events with an energetic jet and missing transverse momentum in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. *Physical Review D*. 103 (11): 112006. DOI: 10.1103/PhysRevD.103.112006

<http://hdl.handle.net/10486/701543> *Open Access [Q1]

22. Aad, G.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Príncipe Martín, M.A.; Terrón, J.; ... ATLAS Collaboration (2021). A search for the decays of stopped long-lived particles at $\sqrt{s}=13$ TeV with the ATLAS detector. *Journal of High Energy Physics*. 7: 173. DOI: 10.1007/JHEP07(2021)173

*Open Access [Q1]

23. Aad, G.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Príncipe Martín, MA.; Terrón, J.; ... ATLAS Collaboration (2021). Evidence for Higgs boson decays to a low-mass dilepton system and a photon in pp collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. *Physics Letters B.* 819: 136412. DOI: 10.1016/j.physletb.2021.136412

*Open Access [Q1]

24. Aad, G.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Príncipe Martín, MA.; Terrón, J.; ... ATLAS Collaboration (2021). Search for New Phenomena in Final States with Two Leptons and One or No b-Tagged Jets at $\sqrt{s}=13$ TeV Using the ATLAS Detector. *Physical Review Letters.* 127 (14): 141801. DOI: 10.1103/PhysRevLett.127.141801

[Q1]

25. Aad, G.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Determination of the parton distribution functions of the proton from ATLAS measurements of differential $W^{+/-}$ and Z boson production in association with jets. *Journal of High Energy Physics.* 7: 223. DOI: 10.1007/JHEP07(2021)223

*Open Access [Q1]

26. Aad, G.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Differential cross-section measurements for the electroweak production of dijets in association with a Z boson in proton–proton collisions at ATLAS. *European Physical Journal C.* 81 (2): 163. DOI: 10.1140/epjc/s10052-020-08734-w

<http://hdl.handle.net/10486/701385> *Open Access [Q2]

27. Aad, G.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Exclusive dimuon production in ultraperipheral Pb plus Pb collisions at $\sqrt{s_{NN}}=5.02$ TeV with ATLAS. *Physical Review C.* 104 (2): 024906. DOI: 10.1103/PhysRevC.104.024906

[Q2]

28. Aad, G.; ... Álvarez Estévez, M.; Barreiro, F.; Calvente López, S.; Camarero Muñoz, D.; Del Peso, J.; Glasman, C.; Terrón, J.; ... ATLAS Collaboration (2021). Jet energy scale and resolution measured in proton-proton collisions at $\sqrt{s}=13$ TeV with the ATLAS detector. *European Physical Journal C.* 81 (8): 689. DOI: 10.1140/epjc/s10052-021-09402-3

<http://hdl.handle.net/10486/704651> *Open Access [Q2]

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4.TESIS DOCTORALES

En 2021, se han defendido 17 tesis doctorales en el departamento

Plan	Tesis defendidas
Programa de Doctorado en Astrofísica	1
Programa de Doctorado en Física Teórica	16
Total	17

Relación de Tesis doctorales - Ordenación alfabética por título

1. A Systematic Search of Dark Matter Subhalos in Gamma Rays among Unidentified Sources and Constraints on Dark Matter Properties

Autoría: Coronado Blázquez, Javier Fecha de lectura: 01/10/2021
Dirigida por: Muñoz López, Carlos; Sánchez Conde, Miguel Ángel
<http://hdl.handle.net/10486/700212>
Programa de Doctorado en Física Teórica
Departamento de Física Teórica

2. Aspectos Fenomenológicos del Minimal Linear Sigma Model y de sus Extensiones

Autoría: Alonso González, Javier Fecha de lectura: 14/12/2021
Dirigida por: Merlo, Luca
<http://hdl.handle.net/10486/700804>
Programa de Doctorado en Física Teórica
Departamento de Física Teórica

3. Cosmic-ray transport in the Milky Way and related phenomenology

Autoría: Fornieri, Ottavio Fecha de lectura: 17/5/2021
Dirigida por: Gaggero, Daniele; Marrocchesi, Pier Simone
Tutorizada por: Muñoz López, Carlos
<http://hdl.handle.net/10486/696679>
Programa de Doctorado en Física Teórica
Departamento de Física Teórica

4. Exploring the nature of dark energy with modified gravity and machine learning

Autoría: Arjona Fernández, Rubén Fecha de lectura: 1/9/2021
Dirigida por: Nesseris, Savvas
Tutorizada por: Varela Rizo, Óscar Maigmo
Desarrollada en: Centro Superior de Investigaciones Científicas (CSIC)
<http://hdl.handle.net/10486/699719>
Programa de Doctorado en Física Teórica
Departamento de Física Teórica

5. In-beam -ray spectroscopic studies near the doubly-magic nuclei ^{56}Ni and ^{208}Pb

Autoría: Fernández Martínez, Álvaro Fecha de lectura: 28/10/2021
Dirigida por: Jungclaus, Andrea
Tutorizada por: Egido de los Ríos, José Luis
Desarrollada en: Centro Superior de Investigaciones Científicas (CSIC)
<http://hdl.handle.net/10486/700169>
Programa de Doctorado en Física Teórica
Departamento de Física Teórica

6. Measurements of the inclusive isolated-photon and photon-plus-jet production in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector

Autoría: Camarero Muñoz, Daniel Fecha de lectura: 10/12/2021
Dirigida por: Terrón Cuadrado, Juan; Glasman Kuguel, Claudia Beatriz
<http://hdl.handle.net/10486/700794>
Programa de Doctorado en Física Teórica
Departamento de Física Teórica

7. Medida de la anisotropía de los rayos cósmicos con AMS-02 en la estación espacial internacional

Autoría: Molero González, Miguel Fecha de lectura: 14/7/2021
Dirigida por: Velasco Frutos, Miguel Ángel; Casaus Armentano, Jorge
Tutorizada por: Fernández Trocóniz Acha, Jorge

Desarrollada en: Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT-CSIC)

<http://hdl.handle.net/10486/699422>

Programa de Doctorado en Física Teórica

Departamento de Física Teórica

8. Neutrino windows to the origin of matter

Autoría: Rosauro Alcaraz, Salvador

Fecha de lectura: 1/10/2021

Dirigida por: Fernández Martínez, Luis Enrique

<http://hdl.handle.net/10486/700173>

Programa de Doctorado en Física Teórica

Departamento de Física Teórica

9. Phenomenological and cosmological aspects of axions and other Nambu-Goldstone Bosons

Autoría: Arias Aragón, Fernando

Fecha de lectura: 10/9/2021

Dirigida por: Merlo, Luca

<http://hdl.handle.net/10486/699699>

Programa de Doctorado en Física Teórica

Departamento de Física Teórica

10. Primordial Black Hole cluster dynamics and Early Universe models

Autoría: Trashorras Avendaño, Manuel Heliodoro

Fecha de lectura: 25/1/2021

Dirigida por: Garcia-Bellido Capdevila, Juan; Nesseris, Savvas

<http://hdl.handle.net/10486/694541>

Programa de Doctorado en Física Teórica

Departamento de Física Teórica

11. Quantum corrections and the Swampland

Autoría: Wiesner, Max

Fecha de lectura: 10/9/2021

Dirigida por: Marchesano Buznego, Fernando G.

Tutorizada por: Varela Rizo, Óscar Maigmo

<http://hdl.handle.net/10486/699847>

Programa de Doctorado en Física Teórica

Departamento de Física Teórica

12. Search for beyond Standard Model processes in the muon + missing transverse momentum final state with Run 2 data recorded by the CMS experiment

Autoría: Bachiller Perea, Irene

Fecha de lectura: 30/11/2021

Dirigida por: de la Criz Martínez, M. Begoña

Tutorizada por: Terrón Cuadrado, Juan

Desarrollada en: Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT-CSIC)

<http://hdl.handle.net/10486/700320>

Programa de Doctorado en Física Teórica

Departamento de Física Teórica

13. Studies on the scintillation light detection in the ProtoDUNE Dual Phase liquid-argon TPC and its capability for the supernova trigger in DUNE

Autoría: Gallego Ros, Ana

Fecha de lectura: 15/12/2021

Dirigida por: Cuesta Soria, Clara; Palomares Espiga, Carmen

Tutorizada por: Terrón Cuadrado, Juan

<http://hdl.handle.net/10486/700797>

Programa de Doctorado en Física Teórica
Departamento de Física Teórica

14. Swampland Conjectures: a link between particle physics and String Theory

Autoría: Gonzalo Badía, Eduardo

Fecha de lectura: 7/10/2021

Dirigida por: Ibañez Santiago, Luis Enrique

<http://hdl.handle.net/10486/700217>

Programa de Doctorado en Física Teórica

Departamento de Física Teórica

15. Symmetrias discretas, dynamical tadpoles y el swampland

Autoría: Mininno , Alessandro

Fecha de lectura: 10/9/2021

Dirigida por: Uranga Urteaga, Ángel María

<http://hdl.handle.net/10486/699702>

Programa de Doctorado en Física Teórica

Departamento de Física Teórica

16. The quest for quantum gravity: from weyl invariance to transverse theories

Autoría: Santos García, Raquel

Fecha de lectura: 16/7/2021

Dirigida por: Uranga Urteaga, Ángel María; Álvarez Vázquez, Enrique

<http://hdl.handle.net/10486/699413>

Programa de Doctorado en Física Teórica

17. Una visión multi-longitud de onda de la evolución estelar en estrellas masivas: reexaminando el límite superior de masa y restringiendo los índices de pérdida de masa"

Autoría: Rubio Díez, María del Mar

Fecha de lectura: 21/1/2021

Dirigida por: Najarro, Francisco

Tutorizada por: Meeus, Gwendolyn

<http://hdl.handle.net/10486/700259>

Programa de Doctorado en Astrofísica

Departamento de Física Teórica

5.PROYECTOS DE INVESTIGACIÓN Y CONTRATOS CON EMPRESAS

El Departamento para 2021 ha tenido vigentes 36 proyectos de investigación.

Relación de Proyectos de Investigación vigentes en 2021

1. Aprendizaje automático: interpretabilidad, algoritmos avanzados y aplicaciones

Referencia: PID2019-106827GB-I00

Vigencia: 2020 - 2023

Investigadores: Emami, Seyedsaman; Díaz Vico, David; Abichequer Sangalli, Vincenzo; López Lázaro, Jorge; Rabin, Neta; Fishelov, Dalia; Fanuel, Michael; Sabzevari, Maryam; Hernández Lobato, Daniel (IP); Garrido Merchán, Eduardo César; Díaz García, Julia; Barbero Jiménez, Álvaro; Pulido Cañabate, Estrella; Ramos Carreño, Carlos; Nedeltchev Koroutchev, Kostadin; Alaiz Gudín, Carlos María; González Marcos, Ana María; Martínez Muñoz, Gonzalo (IP); Villacampa Calvo, Carlos; Fernández Pascual, Ángela; Yepes Alonso, Gustavo; Suárez González, Alberto; Pascual Broncano, Pedro José; Sierra Urrecho, Alejandro; Zaldívar Montero, Bryan; Dorronsoro Íbero, José Ramón; Hernández Lobato, José Miguel; Santa Cruz Fernández, Carlos; Rodríguez Santana, Simón; Rodríguez Luján, Irene; Barbero Casado, Patricia; Torres Barrán, Alberto; Mejía Jiménez, Inmaculada; Álvaro Valiente, Laura

Entidades participantes: Departamento de Ingeniería Informática; Departamento de Física Teórica; Grupo de Neurocomputación Biológica; Grupo de Aprendizaje Automático

Financiador: Ministerio de Ciencia e Innovación. Convocatoria 2019 Proyecto I+D+I, Programa Estatal de Generación de Conocimiento

2. Boosting the dark matter searches with artificial intelligence

Referencia: SI1/PJI/2019-00294

Vigencia: 2020 - 2022

Investigadores: Domínguez Díaz, Alberto; No Redondo, José Miguel; Zaldívar Montero, Bryan (IP); Martínez Muñoz, Gonzalo; Sánchez Conde, Miguel Ángel

Entidades participantes: Departamento de Ingeniería Informática; Departamento de Física Teórica; Grupo de Aprendizaje Automático

Financiador: Comunidad de Madrid

3. Captación de talentos 5ª anualidad

Referencia: 2020-5A/TIC-19725

Vigencia: 2021 - 2022

Investigadores: Sánchez Conde, Miguel Ángel (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Comunidad de Madrid

4. Centro Proceso Datos para experimento ATLAS

Referencia: 2021/00026/001

Vigencia: 2021 - 2023

Investigadores: Del Peso Malagón, José (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Universidad Autónoma de Madrid

5. Convocatoria 2016 Programa Severo Ochoa

Referencia: SEV-2016-0597

Vigencia: 2017 - 2021

Investigadores: Herrero Solans, María José; Gavela Legazpi, María Belén; Heinemeyer, Sven; Ortín Miguel, Tomás; Landsteiner, Karl; Sierra Rodero, Germán; García-Bellido Capdevila, Juan; Pena Ruano, Carlos Roberto; Moreno Moreno, Jesús; Uranga Urteaga, Ángel María; Muñoz López, Carlos; Ibáñez Santiago, Luis Enrique (IP)

Entidades participantes: Departamento de Física Teórica, Instituto de Física Teórica (IFT)

Financiador: Ministerio de Economía y Competitividad (MINECO)

6. Detección de supersimetría y materia oscura en el LHC

Referencia: UAM/125

Vigencia: 2019 - 2021

Investigadores: Muñoz López, Carlos (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Universidad Autónoma de Madrid

7. DM: Probing the invisible side of the Universe

Referencia: SI2/PBG/2020-00005

Vigencia: 2020 - 2023

Investigadores: García Cerdeño, David (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Comunidad de Madrid

8. El programa de física experimental de neutrinos y gran unificación en la UAM

Referencia: PGC2018-099388-B-I00

Vigencia: 2019 - 2021

Investigadores: Labarga Echeverría, Luis Alfonso (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia, Innovación y Universidades. Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I+D+i

9. Enabling weak lensing Cosmology EWC

Referencia: GA776247

Vigencia: 2018 - 2022

Investigadores: García-Bellido Capdevila, Juan (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Comisión Europea-H2020

10. Estallidos de formación estelar a lo largo de la evolución del Universo

Referencia: PID2019-107408GB-C42

Vigencia: 2020 - 2023

Investigadores: Zamora Arenal, Sandra; Bellocchi, Enrica; Ascasibar Sequeiros, Yago (IP); Gaggero, Daniele; Sánchez Conde, Miguel Ángel; Rodríguez Baras, Marina; Sánchez Blázquez, Patricia; Romero Calleja, Mario; Rodríguez Pascual, Pedro; De Santos Lleo, María ; Díaz Beltrán, Ángeles Isabel (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia e Innovación. Convocatoria 2019 Proyecto I+D+I, Programa Estatal de Generación de Conocimiento

11. Estudio de los datos del run 2 de colisiones protón-protón a 13 TEV con el detector Atlas en el LHC

Referencia: RTI2018-095791-B-I00

Vigencia: 2019 - 2021

Investigadores: Terrón Cuadrado, Juan (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia, Innovación y Universidades. Programa Estatal de I+D+i Orientada a los Retos de la Sociedad

12. European network for Particle physics, Lattice field

Referencia: GA 813942

Vigencia: 2019 - 2022

Investigadores: Herdoiza Bolaños, Gregorio (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Comisión Europea

13. Feasibility study for employing the uniquely powerful ess linear accelerator to generate an intense neutrino beam for leptonic measurement - essnusb

Referencia: GA777419

Vigencia: 2018 - 2021

Investigadores: Fernández Martínez, L. Enrique (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Comisión Europea

14. Física de partículas inexplorada

Referencia: PID2019-108892RB-I00

Vigencia: 2020 - 2023

Investigadores: Herraiz Escudero, Álvaro; Arco García, Francisco Manuel; Santos García, Raquel; Herrero Solans, María José; Rosauo Alcaráz, Salvador; Merlo, Luca (IP); Álvarez Vázquez, Enrique; Fernández Martínez, L. Enrique; Quílez Lasanta, Pablo; Ibáñez Santiago, Luis Enrique; Arias Aragón, Fernando; Gavela Legazpi, María Belén (IP); Morales Valbuena, Roberto Aníbal; Gonzalo Badía, Eduardo; González López, Manuel

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia e Innovación. Convocatoria 2019 Proyecto I+D+I, Programa Estatal de Generación de Conocimiento

15. Física de partículas, teoría de cuerdas y cosmología

Referencia: 2021/00065/001

Vigencia: 2021 - 2023

Investigadores: Ibáñez Santiago, Luis Enrique (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Universidad Autónoma de Madrid

16. Física en Run 3 del LHC

Referencia: 2021/00031/001

Vigencia: 2021 - 2022

Investigadores: Heinemeyer, Sven (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Universidad Autónoma de Madrid

17. Física fundamental y cosmología con cartografiados extra galácticos

Referencia: PGC2018-094773-B-C32

Vigencia: 2019 - 2021

Investigadores: Nesseris, Savvas (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia, Innovación y Universidades. Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I+D+i

18. Física más allá del modelo estándar y sus implicaciones para el universo primitivo: nuevas ideas y técnicas

Referencia: PGC2018-096646-A-I00

Vigencia: 2019 - 2021

Investigadores: Ballesteros Martínez, Guillermo (IP); No Redondo, José Miguel (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia, Innovación y Universidades. Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I+D+i

19. Hacia un genuino Tier-2 Federado Español de ATLAS para afrontar el reto de la gestión y procesamiento del Big Data del LHC (FASE II)

Referencia: PID2019-104301RB-C22

Vigencia: 2020 - 2023

Investigadores: Del Peso Malagón, José (IP); Glasman Kuguel, Claudia Beatriz

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia e Innovación. Convocatoria 2019 Proyecto I+D+I, Programa Estatal de Generación de Conocimiento

20. Hunting Invisibles: Dark sectors, Dark matter and Neutrinos- HIDDEN

Referencia: GA 860881

Vigencia: 2020 - 2024

Investigadores: Gavela Legazpi, María Belén (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Comisión Europea

21. La Caixa Health Research SYNAPTIC HR17-00149, A translational model of antibody - mediated synaptic disease: symptoms, neuronal circuits, and the mechanisms of memory loss and recovery

Vigencia:

2018 - 2021

Investigadores: Dalmau, Josép; Compte, Albert; Jercog, Pablo (IP); De la Rocha Vázquez, Jaime
Entidades participantes: Departamento de Física Teórica; Consorci Institut D'Investigacions Biomèdiques August Pi I Sunyer
Financiador: Obra Social Fundación la Caixa

22. La Caixa PhD Fellowship

Vigencia: 2017 - 2021

Investigadores: De la Rocha Vázquez, Jaime (Coord.)
Entidades participantes: Departamento de Física Teórica; Institut d'Investigacions Biomèdiques August Pi i Sunyer
Financiador: La Caixa Foundation

23. Latin American Chinese European Galaxy Formation Network

Referencia: GA 734374 Vigencia: 2017 - 2021
Investigadores: Domínguez Tenreiro, Rosa María (IP)
Entidades participantes: Departamento de Física Teórica
Financiador: Comisión Europea-H2020

24. Mecanismos cerebrales de la selección de información: el papel modulador del ritmo alfa

Referencia: PGC2018-100682-B-I00 Vigencia: 2019 - 2021
Investigadores: Zaldívar Montero, Bryan
Entidades participantes: Departamento de Psicología Biológica y de la Salud; Departamento de Física Teórica; Departamento de Psicología Básica; Grupo de Neurociencia Cognitiva: Atención y Memoria
Financiador: Ministerio de Ciencia, Innovación y Universidades. Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I+D+i

25. Neutrinos y nueva física

Referencia: UAM/110 Vigencia: 2018 - 2021
Investigadores: Rosauo Alcaráz, Salvador; Fernández Martínez, L. Enrique (IP)
Entidades participantes: Departamento de Física Teórica
Financiador: Universidad Autónoma de Madrid

26. On the rocks II

Referencia: PGC2018-101950-B-I00 Vigencia: 2019 - 2021
Investigadores: Villaver Sobrino, Eva Gloria (IP)
Entidades participantes: Departamento de Física Teórica
Financiador: Ministerio de Ciencia, Innovación y Universidades. Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I+D+i

27. Participación de la UAM en el experimento CMS del LHC

Referencia: PID2020-116262RB-C43 Vigencia: 2021 - 2024
Investigadores: Fernández Trocóniz Acha, Jorge (IP)
Entidades participantes: Departamento de Física Teórica
Financiador: Ministerio de Ciencia e Innovación. Convocatoria 2020 Proyecto I+D+I, Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico

28. Partículas, astropartículas y materia oscura en el universo

Referencia: PGC2018-095161-B-I00

Vigencia: 2019 - 2021

Investigadores: Poves Paredes, Alfredo

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia, Innovación y Universidades. Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I+D+i

29. Proyecto Ciénaga

Referencia: 2021/00030/002

Vigencia: 2021 - 2023

Investigadores: Ibáñez Santiago, Luis Enrique (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Universidad Autónoma de Madrid

30. Simulaciones cosmológicas multiescala de la formación de galaxias y de las estructuras a larga escala en el universo

Referencia: PGC2018-094975-B-C21

Vigencia: 2019 - 2021

Investigadores: Yepes Alonso, Gustavo (IP); Meeus, Wendolyn; Montesinos Comino, Benjamín; Mendigutía Gómez, Ignacio Antonio

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia, Innovación y Universidades. Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I+D+i

31. SK2HK: from Super-Kamiokande to Hyper-Kamiokande

Referencia: H2020-MSCA-RISE-2019-GA872549-SK2HK

Vigencia: 2019 - 2023

Investigadores: Labarga Echeverría, Luis Alfonso (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Comisión Europea

32. Teoría cuántica de campos no perturbativa en la frontera de intensidad

Referencia: PGC2018-094857-B-I00

Vigencia: 2019 - 2021

Investigadores: Pieroni, Mauro; Cardona Castro, Wilmar Alberto; Montanari, Francesco

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia, Innovación y Universidades. Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I+D+i

33. Teorías microscópicas para el estructura nuclear y aplicaciones

Referencia: PGC2018-094583-B-I00

Vigencia: 2019 - 2021

Investigadores: Rodríguez Frutos, Tomás Raúl; Robledo Martín, Luis Miguel

Entidades participantes: Departamento de Física Teórica

Financiador: Ministerio de Ciencia, Innovación y Universidades. Programa Estatal de Generación de Conocimiento y Fortalecimiento Científico y Tecnológico del Sistema de I+D+i

34. The strong interaction at the frontier of knowledge: fundamental research and applications

Referencia: GA 824093

Vigencia: 2019 - 2023

Investigadores: Herdoiza Bolaños, Gregorio (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Comisión Europea

35. Theory for a unified description of nuclear Structure (TAURUS)

Referencia: H2020-MSCA-IF-2018- 839847

Vigencia: 2019 - 2021

Investigadores: Bally, B. ; Rodríguez Frutos, Tomás Raúl (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Comisión Europea

36. Unveiling the nature of the dark matter in gamma rays with the Fermi satellite

Referencia: 2016-T1 / TIC-1542

Vigencia: 2017 - 2021

Investigadores: Sánchez Conde, Miguel Ángel (IP)

Entidades participantes: Departamento de Física Teórica

Financiador: Comunidad de Madrid, programa 'Atracción de Talento'

6. AYUDAS INDIVIDUALES

Tipo de Ayuda	Número
Dotación adicional Ayudas para Contratos Predoctorales para la Formación de Doctores	14
Dotación adicional capatación de talentos Comunidad de Madrid	4
Dotación adicional convenio UAM LA CAIXA-INPHINIT	4
Dotación adicional Intertalentum	2
Dotación adicional Juan de la Cierva	1
Dotación adicional Junior Leader La Caixa	2
Dotación adicional Programa Ramón y Cajal	5
Total general	32

7. GRUPOS DE INVESTIGACIÓN

No hay adscripción

8. PATENTES

No tiene

9. EMPRESAS BASADAS EN EL CONOCIMIENTO

No tiene

10. SEXENIOS

DEPARTAMENTO	SEXENIOS DE INVESTIGACIÓN ABIERTOS 2016-2021	SEXENIO DE INVESTIGACION 2021	SEXENIO DE TRANSFERENCIA 2019
FT	19	2	0
FACULTAD	417	96	48

11. PREMIOS

Premio nacional de investigación

Premiado: Luis Ibañez Santiago

Departamento: Física Teórica

Concedido por: Ministerio de Ciencia e Innovación

12. PDI DEL DEPARTAMENTO Y ENLACE A SU PERFIL PÚBLICO EN EL PORTAL DE PRODUCCIÓN CIENTÍFICA DE LA UAM [PPC]

12.1. PDI PERMANENTE

[ASCASIBAR SEQUEIROS, YAGO](#)

[DIAZ BELTRAN, ANGELES ISABEL](#)

[DOMINGUEZ TENREIRO, ROSA M^a](#)

[FERNANDEZ MARTINEZ, L. ENRIQUE](#)

[FERNANDEZ TROCONIZ ACHA, JORGE](#)

[GARCIA-BELLIDO CAPDEVILA, JUAN](#)

[GAVELA LEGAZPI, M^a BELEN](#)

[GLASMAN KUGUEL, CLAUDIA BEATRIZ](#)

[GONZALEZ-ARROYO ESPAÑA, ANTONIO](#)

[HERDOIZA BOLAÑOS, GREGORIO](#)

[HERRERO SOLANS, M^a JOSE](#)

[HERVAS LEON, LUIS](#)

[IBAÑEZ SANTIAGO, LUIS ENRIQUE](#)

[KNEBE , ALEXANDER](#)

[LABARGA ECHEVERRIA, LUIS ALFONSO](#)

[MEEUS , GWENDOLYN](#)

[MUÑOZ LOPEZ, CARLOS](#)

[PENA RUANO, CARLOS ROBERTO](#)

[PESO MALAGON, JOSE DEL](#)

[ROBLEDO MARTIN, LUIS MIGUEL](#)

[RODRIGUEZ FRUTOS, TOMAS RAUL](#)

[SABIO VERA, AGUSTIN](#)

[TERRON CUADRADO, JUAN](#)

[VILLAYER SOBRINO, EVA GLORIA](#)

[YEPES ALONSO, GUSTAVO](#)

12.2. PDI NO PERMANENTE

12.2.1 PDI EMÉRITO

[ALVAREZ VAZQUEZ, ENRIQUE](#)

[BARREIRO ALONSO, FERNANDO](#)

[EGIDO DE LOS RIOS, JOSE LUIS](#)

[PARGA CARBALLEDA, NESTOR](#)

[SANCHEZ GOMEZ, JOSE LUIS](#)

[SANCHEZ RON, JOSE MANUEL](#)

12.2.2 PDI DOCTOR NO PERMANENTE

[AREAN FRAGA, DANIEL](#)

[AVILA PEREZ, SANTIAGO JAVIER](#)

[BALLESTEROS MARTINEZ, GUILLERMO](#)

[CEVERINO RODRIGUEZ, DANIEL](#)

[FLEURY, PIERRE BAPTISTE](#)

[GAGGERO, DANIELE](#)

[GAMMALDI , VIVIANA](#)

[LACROIX , THOMAS](#)

[MARTINELLI , MATTEO](#)

[MERLO , LUCA](#)

[NO REDONDO, JOSE MIGUEL](#)

[RUIZ FEMENIA, PEDRO DAVID](#)

[SANCHEZ CONDE, MIGUEL ANGEL](#)

[VARELA RIZO, OSCAR MAIGNO](#)

[ZALDIVAR MONTERO, BRYAN](#)

12.2.3. PERSONAL INVESTIGADOR EN FORMACIÓN

[AGUIRRE SANTAELLA, ALEJANDRA](#)

[ALVAREZ ESTEVEZ, MANUEL](#)

[ARCO GARCIA, FRANCISCO MANUEL](#)

[ARIAS ARAGON, FERNANDO](#)

[ARJONA FERNANDEZ, RUBEN](#)

[BALLY, BENJAMIN](#)

[BETHENCOURT DE LEON, NAUZET](#)

[BONILLA GARCIA, JESUS](#)

[BOSCA NAVARRO, VICTOR DAVID](#)

[BRIS CUERPO, ALEJANDRO](#)

[BULTRINI, DANIEL](#)

[BURATTI , GINEVRA](#)

[CAMARERO MUÑOZ, DANIEL](#)

[CAMPOS YUSTE, MANUEL](#)

[CANO MOLINA, JOSE MANUEL](#)

[CESARO , MATTIA](#)

[CESPEDES CASTILLO, SEBASTIAN MIGUEL](#)

[CONTRERAS DE SANTOS, ANA](#)

[DASILVA GOLAN, JORGE LUIS](#)

[DE ANDRÉS HERNÁNDEZ, DANIEL](#)

[ELGOOD, ZACHARY ALEXANDER VEENHOF](#)

[ESPINOSA PORTALES, LLORENÇ](#)

[GARCIA GARCIA, MARCOS ALEJANDRO](#)

[GONZALEZ LOPEZ, MANUEL](#)

[GONZALO BADIA, EDUARDO](#)

[HUNTER GORDON, MAX EDWARD](#)

[LARIOS PLAZA, GABRIEL](#)

[MININNO , ALESSANDRO](#)

[MOLINE , MARIA DE LOS ANGELES](#)

[MORALES TEJERA, SERGIO](#)

[OTA , TOSHIHIKO](#)

[PEREÑIGUEZ RODRIGUEZ, DAVID](#)

[PEREZ ROMERO, JUDIT](#)

[PIERRE , MATHIAS GABRIEL MICHEL](#)

[REYES ALMANZA, ROGELIO](#)

[REYES PERAZA, GUILLERMO](#)

[ROMERO CALLEJA, MARIO](#)

[ROSAURO ALCARAZ, SALVADOR](#)

[SANTOS GARCIA, RAQUEL](#)

[TRASHORRAS AVENDAÑO, MANUEL H.](#)

[UGARRIO MUÑOZ, JAVIER](#)

[WIESNER, MAX](#)

[ZAMORA ARENAL, SANDRA](#)

