

Parte A. PERSONAL DATA

Date	31-3-2021
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Name	Juan García-Bellido		
DNI/NIE/passport	00415197R	Age	55
Researcher Identification No.	Researcher ID		
	ORCID	0000-0002-9370-8360	

A.1. Present Professional Status

Organism	Universidad Autónoma de Madrid		
Dpto./Centre	Instituto de Física Teórica		
Address	c/Nicolas Cabrera, 13		
Telephone	+34912999812	e-mail	juan.garciabellido@uam.es
Category	Full Professor of Physics	Date start	05-04-1999
Code UNESCO	2212.02; 2212.05; 2212.14; 2101.99		
Key words	Particle Physics; Cosmology; Gravitation		

A.2. Academic Background (*title, institution, date*)

Licenciatura/Grado/Doctorado	University	Year
Licenciado Ciencias Físicas	Universidad Complutense de Madrid	1988
Doctor en Física Teórica	Universidad Autónoma de Madrid	1992

A.3. General quality indicators of scientific production

5 sexenios, until 2018. 6 quinquenios, until 2018.
 Supervised 12 PhD Thesis and 5 PhD in progress. Supervised 20 MSc Thesis.
 Database Inspires & Google Scholar: +28000 citations; approx. 5000 cites/yr in last 5 years;
 Hirsch index $h=77$; Total no. published articles in $Q1=+400$.

Parte B. FREE SUMMARY OF CURRICULUM VITAE

Degree in Physics, Universidad Complutense Madrid, 1988. Doctor in Physics, Universidad Autónoma de Madrid, 1992. Two years post-doctoral stay at Stanford (USA) & another two in Sussex University (UK). Fellow and Research Associate at the Theory Division CERN during 4 years. Royal Society University Research Fellowship at Imperial College London. Since April 1999, Professor of Physics at the Universidad Autónoma de Madrid. Since 2004, Investigador at the Instituto de Física Teórica del CSIC. Invited Professor at Université de Genève in 2009-10, and Sabbatical stay at CERN-TH Dep. in 2017-18.

I work on Particle Physics, Cosmological Inflation, Microwave Background, Gravitational Waves, Dark Matter and Dark Energy. I proposed in 1996, together with Andrei Linde and David Wands, that primordial black holes could form in the early universe from large fluctuations generated during inflation and could constitute all of dark matter. I proposed in 1998 that the violent reheating of the universe after inflation could generate a stochastic background of gravitational waves, and in 1999 that the same period could generate the observed matter-antimatter asymmetry. In 2015, with Sebastien Clesse, we proposed the broad mass and clustered primordial black hole scenario that could give rise to the SMBH at the centers of galaxies and initiate structure formation before matter-radiation equality. We predicted that LIGO should see black hole binaries with tens of solar masses, which were detected for the first time via gravitational waves a few months later. In 2019 we proposed a scenario based on known physics and the thermal history of the universe, that predicted a specific PBH mass function that is being measured at LIGO/Virgo interferometers. He is member of several international collaborations like DES, PAU, DESI, LSST, Euclid, LISA and very recently was invited to join Virgo. He has participated in the Multimessenger detection of the optical counterpart to GW170817 and the determination of the present rate of expansion of the universe with standard sirens. Author of more than 400 scientific articles in high impact journals, like Nature, Physical Review Letters, Living Reviews in Relativity, JCAP, MNRAS, etc. I have been invited to write popularizing articles for Scientific American.

IP of 25 Research Projects (international: Royal Society, NATO and national: CICYT, Comunidad Madrid & Consolider), as well as IP of 9 complementary actions. Also participate as member of other 31 Research Projects.

Supervised twelve PhD Thesis: Maria Beltran (2007), Alfonso Sastre (2010), Daniel G. Figueroa (2010), Javier Rubio (2011), Miguel Zumalacárregui (2012), Alicia Bueno (2013), David Alonso (2013), Santiago Ávila (2016), Ana Isabel Salvador (2017), Francisco Torrentí (2018), José María Ezquiaga (2019), Manuel Trashorras (2021), and five more in progress (Llorenc Espinosa, Walter Riquelme, Victor Bosca, Santiago Jaraba, Jose Francisco Nuño), expected in 2022, 2022, 2023, 2024 & 2025, respectively.

Editor of journals “High Energy Physics Journal”, “International Journal of Modern Physics”, “Universe” & “Physics International”. Organizer of 24 International Workshops.

I am founder of four series of International Workshops (CAPP, Iberian Cosmology, Benasque Cosmology & PACT) which are organized annually or biannually.

Member of the Junta Directiva del Instituto de Física Teórica, as Director del Departamento de Fenomenología y Cosmología. Member of the Consejo de Gobierno de la Universidad Autónoma de Madrid, as representative of PDI in the Comisión de Investigación del Consejo. Spanish Representative in the International Committee of Particle Astrophysics and Cosmology Theory panel of ApPEC; member of the International Committee of ASTRONET for the elaboration of the Science Vision for European Astronomy 2015-2025, and member of the Comité Nacional de la Red de Infraestructuras Astronómicas for the elaboration of the Decadal Survey of Spanish Cosmology for 2015-2025.

Referee of international projects of the National Science Foundation (EE.UU.), STFC (UK), Royal Society (UK), DFG (Germany), Academie Francaise (France), MEGA (Russia), SNSF (Switzerland), TOP (Netherlands), CRA (Belgium), EEA (Norway), HAKA (Finland), FONCyT (Argentina), FONDECYT (Chile), ANII (Uruguay) as well as from ANEP (España), Ikerbasque, AGAUR-Cataluña, DGITT-Valencia, ACSU de Castilla y León, and member of the Comisión de Evaluación de la Junta de Andalucía.

Invited many times to give general colloquia and broad audience talks in national and international centers, as well as interviewed for RNE, RTVE, El País, etc. I also have a regular blog in the journal Investigación y Ciencia (Spanish version of Scientific American).

Parte C. MOST RELEVANT MERITS

C.1. Projects (as PI in the last 5 yrs)

TÍTULO DEL PROYECTO: “Cosmología y Física Fundamental con Cartografiados Extragalácticos”, P. N. Física de Partículas y Nuclear, Ref. PGC2018-94773-B-C32
ENTIDAD FINANCIADORA: Comisión Interministerial de Ciencia y Tecnología (CICYT)
ENTIDADES PARTICIPANTES: Instituto Física Teórica, Univ. Autónoma de Madrid
DURACIÓN DESDE: 2019 HASTA: 2021
INVESTIGADOR PRINCIPAL: Juan García-Bellido Capdevila
NUMERO DE INVESTIGADORES PARTICIPANTES: 7

TÍTULO DEL PROYECTO: “Cosmología y Física Fundamental con Cartografiados Extragalácticos”, P. N. Física de Partículas y Aceleradores, Ref. FPA2015-68048-C3-3-P
ENTIDAD FINANCIADORA: Comisión Interministerial de Ciencia y Tecnología (CICYT)
ENTIDADES PARTICIPANTES: Instituto Física Teórica, Univ. Autónoma de Madrid
DURACIÓN DESDE: 2016 HASTA: 2018
INVESTIGADOR PRINCIPAL: Juan García-Bellido Capdevila
NUMERO DE INVESTIGADORES PARTICIPANTES: 8

TÍTULO DEL PROYECTO: “Cosmología y Física Fundamental con Cartografiados Extragalácticos”, P. N. Física de Partículas y Aceleradores, Ref. FPA2013-47986-C3-3-P
ENTIDAD FINANCIADORA: Comisión Interministerial de Ciencia y Tecnología (CICYT)
ENTIDADES PARTICIPANTES: Instituto Física Teórica, Univ. Autónoma de Madrid
DURACIÓN DESDE: 2014 HASTA: 2016
INVESTIGADOR PRINCIPAL: Juan García-Bellido Capdevila
NUMERO DE INVESTIGADORES PARTICIPANTES: 9

TÍTULO DEL PROYECTO: “Cosmología y Física Fundamental con Cartografiados Extragalácticos”, P. N. Física de Partículas y Aceleradores, Ref. FPA2012-39684-C3-2
ENTIDAD FINANCIADORA: Comisión Interministerial de Ciencia y Tecnología (CICYT)
ENTIDADES PARTICIPANTES: Dep. Física Teórica, Univ. Autónoma de Madrid
DURACIÓN DESDE: 2012 HASTA: 2014
INVESTIGADOR PRINCIPAL: Juan García-Bellido Capdevila
NUMERO DE INVESTIGADORES PARTICIPANTES: 8

TÍTULO DEL PROYECTO: “Cosmology with Extragalactic Surveys”, P. N. Astronomía y Astrofísica, Ref. AYA2009-13936-C06-06
ENTIDAD FINANCIADORA: Comisión Interministerial de Ciencia y Tecnología (CICYT)
ENTIDADES PARTICIPANTES: Dep. Física Teórica, Univ. Autónoma de Madrid
DURACIÓN DESDE: 2009 HASTA: 2012
INVESTIGADOR PRINCIPAL: Juan García-Bellido Capdevila
NUMERO DE INVESTIGADORES PARTICIPANTES: 8

TÍTULO DEL PROYECTO: “Métodos computacionales aplicados a la Física de partículas y la Cosmología”, P. N. Física de Partículas y Aceleradores, Ref. FPA2006-05807
ENTIDAD FINANCIADORA: Comisión Interministerial de Ciencia y Tecnología (CICYT)
ENTIDADES PARTICIPANTES: Dep. Física Teórica, Univ. Autónoma de Madrid
DURACIÓN DESDE: 2006 HASTA: 2009
INVESTIGADOR PRINCIPAL: Juan García-Bellido Capdevila
NUMERO DE INVESTIGADORES PARTICIPANTES: 20

TÍTULO DEL PROYECTO: “Congreso Internacional Benasque Cosmology 2012”, P. N. Física de Partículas y Grandes Aceleradores, Ref. FPA2011-13187-E
ENTIDAD FINANCIADORA: Comisión Interministerial de Ciencia y Tecnología (CICYT)
ENTIDADES PARTICIPANTES: Dep. Física Teórica, Univ. Autónoma de Madrid
DURACIÓN DESDE: 2012 HASTA: 2013
INVESTIGADOR PRINCIPAL: Juan García-Bellido Capdevila
NUMERO DE INVESTIGADORES PARTICIPANTES: 4

TÍTULO DEL PROYECTO: “Congreso Internacional Benasque Cosmology 2010”, P. N. Física de Partículas y Grandes Aceleradores, Ref. FPA2009-07046-E
ENTIDAD FINANCIADORA: Comisión Interministerial de Ciencia y Tecnología (CICYT)
ENTIDADES PARTICIPANTES: Dep. Física Teórica, Univ. Autónoma de Madrid
DURACIÓN DESDE: 2010 HASTA: 2011
INVESTIGADOR PRINCIPAL: Juan García-Bellido Capdevila
NUMERO DE INVESTIGADORES PARTICIPANTES: 4

C.2. Publications (last three years)

<http://inspirehep.net/search?p=a+juan+garcia-bellido+and+d+after+2017>
<https://scholar.google.es/citations?hl=es&tzom=-60&user=3B9dbVAAAAAJ>