



## CURRICULUM VITAE (CVA)

**IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.**

### Part A. PERSONAL INFORMATION

CV date

21/02/2022

First name	Alicia Magdalena		
Family name	Sintes Olives		
Gender (*)	female	Date of Birth (dd/mm/yyyy)	30/09/1969
Social Security, Passport, ID number	41498351A		
e-mail	Alicia.sintes@uib.es	URL Web <a href="http://iac3.uib.es/">http://iac3.uib.es/</a> , <a href="http://grg.uib.es/people/">http://grg.uib.es/people/</a>	
Open Researcher and Contributor ID (ORCID) (*)		0000-0001-9050-7515	

(\*) Mandatory

### A.1. Current position

Position	Full Professor (Catedrática de Universidad)		
Initial date	21 February 2022		
Institution	Universitat de les Illes Balears (UIB)		
Department/Centre	Física	<a href="#">IAC3</a>	
Country	Spain	Phone number	+34 971259834
Keywords	Gravitational Waves Astronomy, Gravitation, General Relativity, Cosmology, Black Holes, Neutron Stars, Data Analysis		

### A.2. Previous positions (research activity interruptions)

Period	Position/Institution/Country/Cause of the interruption
25/09/2008-20/02/2022	Profesora Titular de Universidad (TU) UIB, Spain
22/04/2002-24/09/2008	Associate professor (PTEU), UIB, Spain
01/01/1997-2002	Researcher, Institute Max Planck f. Gravitationsphysik, Germany

### A.3. Education

PhD, Graduate Degree	University/Country	Year
Licenciada Ciencias Físicas	Universitat de les Illes Balears	1992
Licenciada en Grado Ciencias Físicas	Universitat de les Illes Balears	1992
Doctora en Física (PhD)	Universitat de les Illes Balears	1996

### Part B. CV SUMMARY (max. 5,000 characters, including spaces)

Alicia Sintes has recently been promoted to full professor at UIB. She is a theoretical physicist, focusing on the field of gravitational wave astronomy. She is an expert in the commissioning of interferometric detectors, and in the search for gravitational waves from neutron stars and black holes binary systems.

She received her PhD from UIB in 1996 and continued as Marie Curie Fellow and later as a senior postdoctoral researcher at the Max Planck Institute for Gravitational Physics in Germany, joining the GEO collaboration and the LIGO Scientific Collaboration (LSC) when it was founded in 1997, and she was among the first members in the "Astrophysical Source Identification and Signatures (ASIS) working group". In 2002 she joined the Relativity group at



UIB as an associate professor, and since then she has been the principal investigator for the UIB group's participation within the LSC, member of the LIGO-LSC council and of GEO executive committee. She is also a member of the LISA Consortium and of the Einstein Telescope Science Team. Currently, she leads the Gravitational Physics group at UIB, acts as secretary of the IAC3, coordinates the IAC3 outreach activities and the planned move of IAC3 to a new building. She is also a member of the Institut d'Estudis Espacials de Catalunya (IEEC) and the Institut Menorquí d'Estudis (IME).

Sintes has managed several research projects: She is PI at the UIB of PID2019-106416GB-I00, and the Spanish representative of several COST actions, PI during 2 years of the "Red Temática de Relatividad y Gravitación", various complementary actions, an integrated action and a project of the Spanish infrastructure program. She has published 414 articles with a total of about 77000 citations in international journals of high impact. Her h-number is 92 in Scopus (<https://www.scopus.com/authid/detail.uri?authorId=6602765444>, 117 in Google Scholar <https://scholar.google.com/citations?user=KclJ65AAAAAJ&hl=es>). She has obtained four recognitions for six-year research terms (sexenios). At UIB Sintes has been the secretary of the Physics PhD program (2013-18). Sintes has supervised 7 PhD theses and 10 master & diploma theses, and is currently supervising 3 PhD theses and several undergraduate students.

Sintes has a strong track record of international leadership: she served as co-chair of the LIGO-Virgo continuous waves data analysis search group (2016-2018), as a member of the LIGO Science program committee (defining the scientific program of the collaboration), the LISA parameter estimation task force (2007-2010), and the GEO detector characterization working group (2001-2004). Furthermore, she has been a member of the European Space Agency's Fundamental Physics Advisory Group (2007-2009) and of the Fundamental Physics Roadmap Advisory Team (2009-2010) developing recommendations on the Cosmic Vision program. She was a member of the G8 group of the "Red de infraestructuras de Astronomía" (2007-2009) and of the "Red de Interlocutores Universitarios" for the "7th Programa Marco, grupo de Seguridad y Espacio, del Servicio Europa I+D de la CRUE" in 2006. She has also been a member of the board of directors of the "Sociedad Española de Gravitación" since its foundation in 2003 until 2007. Currently she is a member of the Committee of the International Society on General Relativity and Gravitation (2019-2028), of the LIGO Science Program Committee, the LIGO Data Analysis Council, and was the editor of the journal *Astroparticle Physics* (2018-2021).

Sintes has served on ERC Advanced Grant evaluation boards (PE9: Universe Sciences), and and of several editions the Spanish Ramon y Cajal program. She is a member of the Scientific Advisory Board of the Cluster of Excellence QuantumFrontiers, Hannover; the Max Planck Research School (IMPRS) on Gravitational Wave Astronomy Evaluation Committee, and the board of Accreditation of a proposed MSc in Astrophysics & Relativity programme at Dublin City University (2019). She has also served as review pannel member of "Universum 2020-2023, Erforschung von Universum und Materie-ErUM", German Ministry of Science and Education, in the area of astrophysics and astroparticle physics, and she was the president of the jury of the Research Awards of the Community of Madrid "Miguel Catalán" 2021. She regularly serves as reviewer for several funding agencies: NSF, ANEP, ANECA, AGAUR.

She has participated in numerous international conferences, given seminars by invitation and specialized courses. She has organized various congresses such as IGWM 2018, LVC waveforms face-to-face Meeting 2018 Einstein Toolkit 2017, ERE2015, NRDA 2013, CoCoNuT 2012, LISA Astro-GR@Mallorca 2011, IGWM 2011, etc. Sintes has received several awards (see section C.5).

## **Part C. RELEVANT MERITS** (*sorted by typology*)

### **C.1. Publications** (*see instructions*)

- Application of a hierarchical MCMC follow-up to Advanced LIGO continuous gravitational-wave candidates. R Tenorio, D Keitel, Alicia M. Sintes, *Phys. Rev. D* 104, 084012 (2021)

- Time-frequency track distance for comparing continuous gravitational wave signals Rodrigo Tenorio, David Keitel, Alicia M. Sintes, Phys. Rev. D 103, 064053 (2021)
- Search methods for continuous gravitational-wave signals from unknown sources in the advanced-detector era. R. Tenorio, D. Keitel, Alicia M. Sintes, Universe, 7, 474 (2021)
- LIGO Detector Characterization in the Second and Third Observing Runs, D. Davis\*, J. S. Areeda, B. K. Berger, ... J. Zweizig 287/232, Class. Quantum Grav. 38 135014 (2021)
- All-sky search in early O3 LIGO data for continuous gravitational-wave signals from unknown neutron stars in binary systems. R. Abbott et al. (LIGO Scientific Collaboration & Virgo Collaboration 1372 authors). Phys. Rev. D 103, 064017 (2021). A.M. Sintes CA
- First all-sky search for continuous gravitational-wave signals from unknown neutron stars in binary systems using Advanced LIGO data, P. B. Covas, Alicia M. Sintes, Physical Review Letters, 124, 191102 (2020)
- A new method to search for continuous gravitational waves from unknown neutron stars in binary systems. P. B. Covas, Alicia M. Sintes, Physical Review D 99, 124019 (2019),
- Matched-filter study and energy budget suggest no detectable gravitational-wave 'extended emission' from GW170817. M Oliver, D Keitel, A L Miller, H Estelles, Alicia M Sintes, MNRAS, 485, 843–850 (2019)
- Adaptive transient Hough method for long-duration gravitational wave transients. M. Oliver, D. Keitel, and Alicia M. Sintes, Physical Review D 99, 104067 (2019)

## C.2. Congresses

- A. Sintes, Local Organizing Committee of 17th International Conference on Topics in Astroparticle and Underground Physics 2021 (TAUP2021), 30/08-3/09/2021, Valencia, Spain. International
- A. Sintes, Local and Scientific Organizing Committee of [22 International Conference on General Relativity and Gravitation](#), 7-12/07/2019, Valencia, Spain, & 13th Amaldi Conference on Gravitational Waves. International
- A. Sintes, Invited lecture: "Present and future of gravitational wave astronomy". EREP 2021 ([erep2021.web.ua.pt](#)). Online, 13/09/2021. International
- A. Sintes, Invited lecture: Gravitational Waves: The new messengers of the Universe. TAE 2021 - International Workshop on High Energy Physics-Program, Centro de Ciencias de Benasque Pedro Pascual, [benasque.org/2021tae/](#), Spain. 10/09/2021, International
- A. Sintes, Invited Lectures: Gravitational Waves. 31st Chris Engelbrecht Summer School. University of Cape Town, South Africa. 20-29/01/2020, International
- A. Sintes, Invited talk: "Current status of gravitational wave astronomy with LIGO and Virgo". VI Amazonian Workshop on Black Holes and Analogue Models of Gravity, Pará University, Pará, Brazil, 10-14/06/2019, International
- A. Sintes, Invited lecture Continuous wave sources and data analysis. School Enrico Fermi, Course 200: 'Gravitational waves and cosmology', Varena, Italy 3-12/07/2017
- A. Sintes, Invited talk: Gravitational waves data analysis. 73rd Scottish Universities Summer School in Physics, SUSSP73, 27/07/2017, St Andrews, UK, International

## C.3. Research projects

Explotación del potencial científico de los detectores de ondas gravitacionales avanzados en su sensibilidad de diseño. Refs: PID2019-106416GB-I00 Ministerio de Ciencia e innovación  
PI: Alicia M. Sintes, Sascha Husa. Amount: 180.000€. Date: 01/06/2020 - 31/05/2023

Gravitational waves: from first detections to full design sensitivity with Advanced LIGO (IGraWaveEra) Refs: FPA2016-76821-P. Ministerio de Economía y Competitividad  
PI: Alicia M. Sintes, Sascha Husa. Amount: 377.520 €. Date: 30/12/2016 - 31/12/2020

Retos en la observación de ondas gravitacionales por la red internacional de detectores terrestres en su cuarto periodo de observación.

Comunitat Autònoma de les Illes Balears through the Direcció General de Política Universitaria i Recerca with funds from the Tourist Stay Tax Law. Ref: PRD2020/11  
PI: Alicia M Sintes Olives. Amount: 92.661,60€, Date: 01/12/2021-15/10/2024

De LIGO a LISA: Hacia una nueva era en la astronomía de ondas gravitacionales  
Comunitat Autònoma de les Illes Balears through the Direcció General de Política  
Universitaria i Recerca with funds from the Tourist Stay Tax Law. Ref: PRD2018/24  
PI: Alicia M Sintes Olives. Amount: 102.420€. Date: 01/07/2020-01/07/2023

RENATA: RED NACIONAL TEMATICA DE ASTROPARTICULAS

Refs: RED2018-102661-T. PI: Carlos José Delgado Méndez, Alicia M. Sintes (UIB)  
Amount: 17.000€. Date: 01/01/2020 - 31/12/2021

RED CONSOLIDER MULTIDARK: Multimessenger Approach for Dark Matter Detection.  
Refs: FPA2017-90566-REDC. Coordinator: Carlos Muñoz (UAM), Alicia M. Sintes (UIB)  
Amount: 30.000€. Date: 2018 - 2020

Gravitational waves, black holes and fundamental physics  
CA COST Action CA16104. EU Framework Programme Horizon 2020  
Management Committee: Vitor Cardoso (chair), Alicia M. Sintes (UIB)  
Date: 07/04/2017 - 06/04/2021 520.000 euros

A network for Gravitational Waves, Geophysics and Machine Learning.  
Refs: CA COST Action CA17137 EU Framework Programme Horizon 2020  
Management Committee: Elena Cuoco (chair), Alicia M. Sintes (UIB) 13/04/2018-12/04/2022

Conveni Ones Gravitacionals. Govern de les Illes Balears. Vicepresidència i Conselleria  
d'Innovació, Recerca i Turisme per a la recerca en l'àmbit de la física d'ones gravitacionals.  
PI: Alicia M. Sintes . Amount: 175.000€. Date: 01/01/2016-2020

#### **C.4. Technology/Knowledge transfer**

Contributions to the LSC Algorithm Library Suite (LALSuite), a free (GPL), the main software  
framework for data analysis within the LIGO Scientific Collaboration and to the distributed  
computing project Einstein@home.

#### **C.5. Awards**

- VIII Premios Mujeres a Seguir 2021 (Science)
- 'Bartomeu Oliver' 2018 de los premios '31 de diciembre' de La Obra Cultural Balear.
- Member of the "Selección Española de Ciencia 2018" from QUO and CSIC for her involvement in the gravitational waves (November 2018).
- "Premio Sincronizados" from Agencia SINC for her involvement in science communication and outreach activities (November 2018).
- Named "Hija Predilecta de Sant Lluís" (July 2018).
- Rotary Ramón Llull award from The Rotary Club (2018).
- The Socialists of Mallorca deliver the Maria Plaza 2018 award to the 11FBaleares platform to highlight the work and involvement for gender equality.
- As member of the LIGO Scientific Collaboration, she was co-awarded in 2017 Princess of Asturias Award, Physics World 2017 Breakthrough of the Year, among other mentions.
- Group awarded with the "Medalla de Oro de Palma 2017" for its collaboration in gravitational waves detection.
- "Premio Ramon Llull 2017" from the Balearic Islands Government
- "Premio Diario de Mallorca 2017" for her scientific career.
- "Premio Protagonista de la Vida Menorquina" in Social Activities, Diario Menorca (2017).
- Co-awarded the 2016 Gruber Cosmology Prize (Gruber Foundation of Yale University) and Physics World 2016 Breakthrough of the Year (Milner Foundation).
- 2016 Menorca Award for equality in its fifth edition for "her example of the incorporation of women in research, teaching and management of Science"
- "Premio Onda Cero Mallorca 2016" to the Relativity group, led by Alicia Sintes.
- "Premio Onda Cero Menorca 2016".
- "Premio Jaume II 2016" to the Relativity group by Consell de Mallorca, for its participation in the discovery of gravitational waves through LIGO Scientific Collaboration.