

**Part A. Personal Information**

<b>DATE</b>	February 4th, 2019
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Surname(s)	Santamarta Martínez	
Forename	Rubén	
Social Security, Passport, ID number	43088013-C	
Sex	Male	
Age	44	
Researcher codes	WoS Researcher ID (*)	K-7865-2016
	SCOPUS Author ID(*)	55405936800
	Open Researcher and Contributor ID (ORCID)	0000-0003-3341-5758

(\*) At least one of these is mandatory

**A.1. Current position**

Post/ Professional Category	University Lecturer	
UNESCO Code	331208 (Material properties) / 221101 (Alloys)	
Key Words	Martensitic Transformations / Shape Memory Alloys / Transmission Electron Microscopy / Solid State Transformations /	
Name of the University/Institution	University of the Balearic Islands	
	Department/Centre	Physics Department
	Full Address	Building: Mateu Orfila Cra. Valldemossa, km 7.5. E-07122 Palma (Illes Balears)
	Email Address	ruben.santamarta@uib.es
	Phone Number	+34 971173372/971172462
Start date	20/07/2011	

**A.2. Education (title, institution, date)**

Year	University	Degree	Title
1997	University of the Balearic Islands	First degree	BSc in Physics
2002	University of the Balearic Islands	PhD	PhD in Physics

**A.3. Indicators of Quality in Scientific Production (See the instructions)**

- 1) Number of "sexenios" (6 years of the research activity positively evaluated): 3 without any interruption. Last 6 years evaluated: 2011-2016.
- 2) Regional retributive supplement of stimulus and recognition of the research activity: valid until 31/12/2019
- 3) Regional retributive complement of stimulus and recognition of excellence in research and knowledge transfer: valid until 31/12/2019.
- 4) **Thesis supervised: 2 in progress:**
  - Aquilina M. Pérez Sierra, 5<sup>th</sup> year (part time student). End expected for Q4-2019.
  - Shoukai Xu, 1st year. End expected for 2020-2021.
- 5) Total number of JCR publications: 47 (31 in Q1, 24 in D1, 6 in 1st place)
- 6) Number of JCR publications since 2013: 14 (14 in Q1, 12 in D1, 4 in 1st place)
- 7) Total number of citations: 1373 (Scopus)
- 8) Citations since 2013: 633 (Scopus)
- 9) Average number of citations in 2013-2017: 112,2 cites/year (Scopus)
- 10) h-index: 18 (Scopus)

**Part B. Free Summary of CV (Max. of 3.500 characters, including spaces)**

Rubén Santamarta has performed most of his research activities in the research group of Physics of Materials in the University of the Balearic Islands (UIB). After his doctoral thesis (January 2002) he obtained a 2-years postdoctoral stay in EMAT, one of the most prestigious centres on Transmission Electron Microscopy (TEM) in Europe, supervised by Prof. D. Schryvers studying shape memory alloys by this technique. In 2004, Dr. Santamarta came back to the UIB where he focused in structural and microstructural characterization, mainly by conventional and high-resolution TEM.

Since the origin of his research activities, Dr. Santamarta has participated as researcher in 11 research projects from competitive calls, 3 of them from the European Union. He is co-author of 47 indexed publications, most of them in the category of "Metallurgy & Metallurgical Engineering" and several ones with a strong content of TEM results. Among all the publications, 4 of them has more than 50 citations.

Dr. Santamarta is co-author of 74 communications (71 of them are in international conferences). From these, 8 were invited presentations, 3 times chairman of a session and one member of the organizing committee.

**Part C. Relevant accomplishments**

**C.1. Publications**

**Relevant publications since 2013:**

Evirgen, A.; Karaman, I.; Noebe, R.D.; Santamarta, R.; Pons, J.

Effect of precipitation on the microstructure and the shape memory response of the Ni50.3Ti29.7Zr20 high temperature shape memory alloy

Scripta Materialia 69, 354-357 (2013)

Impact factor in the year of publication (JCR): 2.968 / Citations (Scopus): 26

Quartile (JCR): Q1 (METALLURGY & METALLURGICAL ENGINEERING, 3/75)

Santamarta, R.; Arroyave, R.; Pons, J.; Evirgen, A.; Karaman, I.; Karaca, H.E.; Noebe, R.D. TEM study of structural and micro structural characteristics of a precipitate phase in Ni-rich Ni-Ti-Hf and Ni-Ti-Zr shape memory alloys

Acta Materialia 61, 6191-6206 (2013)

Impact factor in the year of publication (JCR): 3.94 / Citations (Scopus): 51

Quartile (JCR): Q1 (METALLURGY & METALLURGICAL ENGINEERING, 1/75)

Evirgen, A.; Karaman, I.; Santamarta, R.; Pons, J.; Noebe, R.D.

Microstructural characterization and superelastic response of a Ni50.3Ti29.7Zr20 High Temperature Shape Memory Alloy

Scripta Materialia 81, 12-15 (2014)

Impact factor in the year of publication (JCR): 3.224 / Citations (Scopus): 16

Quartile (JCR): Q1 (METALLURGY & METALLURGICAL ENGINEERING, 3/74)

Kustov, S.; Salas, D.; Cesari, E.; Santamarta, R.; Mari, D.; Van Humbeeck, J.

Structural anelasticity, elasticity and broken ergodicity in Ni-Ti shape memory alloys

Acta Materialia 73, 275-286 (2014)

Impact factor in the year of publication (JCR): 3.465 / Citations (Scopus): 16

Quartile (JCR): Q1 (METALLURGY & METALLURGICAL ENGINEERING, 1/74)

Evirgen, A.; Karaman, I.; Santamarta, R.; Pons, J.; Noebe, R.D.

Microstructural characterization and shape memory characteristics of the Ni50.3Ti34.7Hf15 shape memory alloy

Acta Materialia 83, 48-60 (2015)

Impact factor in the year of publication (JCR): 5.058 / Citations (Scopus): 28

Quartile (JCR): Q1 (METALLURGY & METALLURGICAL ENGINEERING, 2/73)

Pérez-Sierra, A.M.; Pons, J.; Santamarta, R.; Vermaut, P.; Ochin, P.

Solidification microstructure and effect of thermal treatments on Ni-Co-Mn-Sn metamagnetic shape memory alloys

Acta Materialia 93, 164-174 (2015)

Impact factor in the year of publication (JCR): 5.058 / Citations (Scopus): 8

Quartile (JCR): Q1 (METALLURGY & METALLURGICAL ENGINEERING, 2/73)

Santamarta, R.; Muntasell, J.; Font, J.; Cesari, E.

Thermal stability and microstructure of Ni-Mn-Ga-Cu high temperature shape memory alloys

Journal of Alloys and Compounds 648, 903-911 (2015)

Impact factor in the year of publication (JCR): 3.014 / Citations (Scopus): 4

Quartile (JCR): Q1 (METALLURGY & METALLURGICAL ENGINEERING, 4/73)

Pérez-Sierra, A.M.; Pons, J.; Santamarta, R.; Karaman, I.; Noebe, R.D.

Stability of a Ni-rich Ni-Ti-Zr high temperature shape memory alloy upon low temperature aging and thermal cycling

Scripta Materialia 124, 47-50 (2016)

Impact factor in the year of publication (JCR): 3.747 / Citations (Scopus): 7

Quartile (JCR): Q1 (METALLURGY & METALLURGICAL ENGINEERING, 3/74)

Evirgen, A.; Karaman, I.; Santamarta, R.; Pons, J.; Hayrettin, C.; Noebe, R. D.

Relationship between crystallographic compatibility and thermal hysteresis in Ni-rich NiTiHf and NiTiZr high temperature shape memory alloys

Acta Materialia 121, 374-383 (2016)

Impact factor in the year of publication (JCR): 5.301 / Citations (Scopus): 8

Quartile (JCR): Q1 (METALLURGY & METALLURGICAL ENGINEERING, 1/74)

Bruno, N.M.; Salas, D.; Wang, S.; Roshchin, I.V.; Santamarta, R.; Arroyave, R.; Duong, T.; Chumlyakov, Y.I.; Karaman, I.

On the microstructural origins of martensitic transformation arrest in a NiCoMnIn magnetic shape memory alloy

Acta Materialia 142, 95-106 (2018)

Impact factor in 2016 (JCR): 5.301 / Citations (Scopus): 1

Quartile (JCR): Q1 (METALLURGY & METALLURGICAL ENGINEERING, 1/74)

## C.2. Participation in Research, Development and Innovation Projects

Propiedades funcionales y procesos de no equilibrio en aleaciones con memoria de forma y materiales multiferroicos relacionados

DGICyT – Ministerio de Economía y Competitividad, Spain

Reference: MAT2014-56116-C4-1-R

From: desde: 01/01/2015 Until: 31/12/2018 PI: Prof. E. Cesari, Dr.S. Kustov (UIB)

Amount: 181.500 €

Type of participation: researcher

Micro and nanoscale design of thermally actuating systems

UE - Marie Curie Actions Call: FP7-PEOPLE-2013-IRSES

Reference: Grant Agreement Number 612585

From: 01/01/2014 Until: 31/12/2017

PI: Responsible UIB: Prof. E. Cesari Coordinator: Prof. Corneliu M. Craciunescu (U. Timisoara, Romania)

Amount: 204.000 € (global project)

Type of participation: researcher

Magneto-structural effects in magnetic shape memory materials with improved functional properties

SDGPI – Ministerio Ciencia e Innovación, Spain

Reference: MAT2011-28217-C02-01

From: 01/01/2012 Until: 31/12/2014 PI: Prof. Jaume Pons (UIB)

Amount: 154.999,79 €

Type of participation: researcher

Comportamiento magnetoelástico, microestructura y propiedades funcionales en aleaciones ferromagnéticas con memoria de forma  
SDGPI – Ministerio Ciencia e Innovación, Spain  
Reference: MAT2008-01587  
From: 01/01/2009 Until: 31/12/2011 PI: Prof. E. Cesari (UIB)  
Amount: 145.200 €  
Type of participation: researcher

Development and characterisation of new ferromagnetic shape memory alloys  
Programa Nacional de Materiales, Ministerio de Educación y Ciencia  
Reference: MAT2006-28193-E  
From 2007 Until 2010 PI: E. Cesari (UIB)  
Amount: 35.000,00 €  
Type of participation: researcher

Nuevas aleaciones ferromagnéticas con memoria de forma: interacciones magnetoelásticas, efectos microestructurales, estabilidad y características funcionales.  
Dir. General Investigación – Ministerio Ciencia y Tecnología, Spain  
Reference: MAT2005-00093  
From: 15/10/2005 Until: 14/10/2008 PI: Prof. Jaume Pons  
Amount: 195.160 €  
Type of participation: researcher

Phase Transitions in Crystalline Solids  
Training and Mobility of Researchers (European Commission, Frame Work Programme)  
Reference: FMRX-CT98-0229  
From 1998 Until: 2004  
Researcher/s in charge: Mario Pitteri (University of Padova)  
Amount: 1.386.000,00 €  
Type of participation: post-doctoral stay (researcher)

### **C.3. Participation in Research, Development and Innovation Contracts**

#### **C.4. Patents**

#### **C.5, C.6, C.7... Other**

- \* PhD fellowship from University of the Balearic Islands, 1998-2001
- \* Research stay as PhD student in: Institute of Physics and Chemistry of Metals, University of Silesia, Katowice (Poland). 2 months in 2000. Issue: Aprendizaje de técnicas de microscopía de alta resolución (HRTEM) y análisis de difracción de rayos X (Método de Rietveld).
- \* Postdoctoral contract in the Electron Microscopy for Materials Science (EMAT) in Antwerp (Belgium) in the framework of FMRX-CT98-0229: March 2002-February 2004.
- \* Research stay as guest in: Department of Materials Science and Engineering at Texas A&M University, College Station (TX), USA. 1 month in 2014. Issue: Characterization of several high temperature shape memory alloys mainly by transmission electron microscopy.
- \* Estancia de profesores e investigadores senior en centros extranjeros, incluido el programa 'Salvador de Madariaga' (ref. PRX15/00549): "Microscopía Electrónica de Transmisión y EBSD en aleaciones con memoria de forma" in Department of Materials Science and Engineering at Texas A&M University, College Station (TX), USA. 4 months in 2016.
- \* Secretary of the Physics Department, University of the Balearic Islands (June 2008 – January 2012)
- \* Director of the Center for Postgraduate Studies, University of the Balearic Islands (June 2017 – continues)
- \* Reviewer of scientific papers for numerous journals: Scripta Materialia, Smart Materials and Structures, Shape Memory and Superelasticity, Metallurgical and Materials Transactions, Materials Characterization, etc. Reviewer for the Ikerbasque program: 2 times.