



CURRICULUM VITAE (CVA)

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CV date	27/01/2025
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Part A. PERSONAL INFORMATION

First name	José Alfonso		
Family name	Artero Guerrero		
Gender (*)	Male	Birth date (dd/mm/yyyy)	25/09/1986
Social Security, Passport, ID number	74937306V		
e-mail	jartero@ing.uc3m.es	URL Web www.dynamicsuc3m.com	
Open Research and Contributor ID (ORCID)(*)	0000-0001-8206-9439		

(*) Mandatory

A.1. Current position

Position	Associate professor		
Initial date	15/02/2019		
Institution	Universidad Carlos III de Madrid		
Department/Center	Continuum Mechanics and Structural analysis		
Country	Spain	Teleph. number	916246015
Key words	Continuum Mechanics, impact dynamics, composite materials, Constitutive behaviour of materials, High rate characterization		

A.2. Previous positions (research activity interruptions, art. 45.2.c)

Period	Position/Institution/Country/Interruption cause
01-10-2011-30-09-2016	Profesor Ayudante/ Universidad Carlos III de Madrid / New position
01-10-2016-31-08-2017	Profesor Visitante/ Universidad Carlos III de Madrid / New position
01-09-2017-14-02-2019	Profesor Ayudante Específico/ Universidad Carlos III de Madrid / New position

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Ingeniero Industrial	Universidad Carlos III de Madrid	2010
Master Mecánica Estructural Avanzada	Universidad Carlos III de Madrid	2012
Doctor en Ingeniería Mecánica y de Organización Industrial	Universidad Carlos III de Madrid	2014

Part B. CV SUMMARY (max. 5000 characters, including spaces)

José Alfonso Artero Guerrero is associate professor (profesor titular de universidad) at Universidad Carlos III de Madrid since 2019. He is an industrial engineer that has held for 13 years, uninterruptedly, research and teaching positions in the area of knowledge of mechanics of continuous media and theory of structures at the University Carlos III of Madrid. During this period the applicant has obtained the degree of Master in Advanced Structural Mechanics (extraordinary award to the best academic record), and has obtained the doctorate with *apto-cum laude* qualification. The applicant accredits 13.5 years of full-time teaching in regulated subjects. The applicant began his teaching activity as a Master's grant holder in the academic year 2010/11. He then obtained the status of Assistant Professor in the 2011/12 academic year. Since February 2019 he has been associate professor at the University. The applicant has a total of 1521.8 hours of regulated teaching divided between the former engineering, undergraduate and postgraduate degrees (89.9h). The hours with doctorate degree are 1324.8 (until June 2024) including 38h in non-regulated teaching of his own postgraduate degree (Master UC3M-Airbus Airframe Technology). If we express the teaching in ECTS, this would mean a total of 148.5 ECTS for the doctorate degree. In addition, 48 TFE have been directed by him.

The researcher develops his research work within the research group "Dynamics of Lightweight Structures", led by Professor Jorge López-Puente and David Varas Doval. His research interest has been related with the behavior of composite material subject to impact events. In the last research period, he has focused on the characterization of composite materials under high strain rate. He currently leads 1 national competitive projects. He had leads 4 more competitive projects (1 european project and 3 regional ones). The total financed quantity is 500k€, being 193k€ lead by the researcher. He also is currently participating in 5 more competitive projects (2 European, 2 national and 1 regional) and has actively and continuously participated in 9 research projects obtained in public competitive calls, both European, national and regional.

As a result of his research work, he has published a total of 29 articles in journals included in the JCR of recognized quality; 27 of them are Q1 while 2 are Q2. The dissemination of the publications and their relevance are reflected in the 725 citations obtained according to "Scopus" with an impact factor $h=16$. As a result of the research experience, the researcher has carried out collaborative stays in a prestigious international center, the University of Edinburgh with Professor F. Teixeira. He also has active collaborations with other international researcher as Miguel Costas and Tore Borvick from NTNU (Trondheim Norway) and Patryk Jakubczak (Lublin University). He regularly contributes to international conferences to disseminate the results of his research (more than 30 contributions).

The researcher considers the transfer of research results to the industrial sector to be essential. With this objective, he has been the leader of 8 technological development projects and participated in more than 20 in collaboration with important companies in the aeronautical sector and technological centers that obtained a total funding of more than 1M€. It is worth mentioning the continuity of the collaboration with companies such as: Airbus, Aernnova and ITP in the research of the behavior of aeronautical structures against impact that results in the improvement of structural designs.

Regarding the university management currently he is director of the Master's Degree in Industrial Mechanics. This position is being held at the time of the application with a start date of 01/06/2023. He is elected member of the departmental council since 2013 and *ex officio* member since 2014.

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

C.1. Publications (*see instructions*)

1. S.A.Medina, E.V.González, N.Blanco, P.Maimí, J.Pernas-Sánchez, **J.A.Artero-Guerrero**, P. Hahn, M. May, E. de Blanpré, V. Jacques. Rate-dependency analysis of mode I delamination by means of

different data reduction strategies for the GDCB test method. *Engineering Fracture Mechanics* ,288, 109352, 2023.

2. J.M. Rodríguez-Sereno, J. Pernas-Sánchez, **J.A. Artero-Guerrero**, J. López-Puente, B. Lukić.

Experimental study of off-axis compression behaviour in dynamic loading: The open hole effect. *Composites Part A: Applied Science and Manufacturing*, 173, 107653,2023.

3. S.A.Medina, E.V.González, N.Blanco, J.Pernas-Sánchez, **J.A.Artero-Guerrero**. Guided Double Cantilever Beam test method for intermediate and high loading rates in composites. *International Journal of Solids and Structures*, 264, 112118, 2023.

4.- **Artero-Guerrero, J. A.**, D. Varas, J. Pernas-Sánchez, J. López-Puente. Experimental analysis of an attenuation method for Hydrodynamic Ram effects. *Materials & Design*. 2018, 155, 451–462

5. **Artero-Guerrero, J. A.**, Jesús Pernas Sánchez, Filipe Teixeira Dias, , Blast wave dynamics: The influence of the shape of the explosive, *Journal of Hazardous materials*, 2017331, 189- 199, 0304-3894.

7. **Artero-Guerrero, J. A.**, Jesús Pernas Sánchez, Jordi Martín-Montal, David Varas, Jorge López-Puente. The influence of laminate stacking sequence on ballistic limit using a combined Experimental/FEM/Artificial Neural Networks (ANN) methodology 2017. *Composite Structures*. Article in Press.

8. **Artero-Guerrero, J. A.**; Jesús Pernas Sánchez; Jorge López Puente; David Varas, 2015, Experimental study of the impactor mass effect on the low velocity impact of carbon/epoxy woven laminates, *Composite Structures*, 133, 774- 781, 0263-8223.

9. **Artero-Guerrero, J. A.**; Jesús Pernas Sánchez; Jorge López Puente; David Varas, 2014, On the influence of filling level in CFRP aircraft fuel tank subjected to high velocity impacts, *Composite Structures*, 107, 570- 577, 0263-8223.

10. **Artero-Guerrero, J. A.**; Jesús Pernas Sánchez; David Varas. ; Jorge López Puente, 2013, Numerical analysis of CFRP fluid-filled tubes subjected to high-velocity impact, *Composite Structures*, 96/February, 286- 297, 0263-8223.

C.2. Congress

More than 30 participations in international and national conferences.

1. A. Cimadevilla, A. Vaz-Romero, J. Pernas-Sánchez, **J. A. Artero-Guerrero**, P. Maimí, E. V. González, E. De Blanpre, V. Jacques. Evaluating the intralaminar tensile fracture behaviour of composite materials under high rate loading through a combined experimental and numerical methodology, ORAL, COMPTTEST 2023, Girona (Spain).

2. E. V. González, **J. A. Artero-Guerrero**, J. Gonzalez, E. De Blanpre, V. Jacques. , Test methods for the characterization of polymer-based composite materials and small size structural demonstrators under dynamic load conditions. , ORAL, ASIDIC, 2023 , Wichita (USA)

3. Analysis of explosive aspect ratio in the blast wave: From flat to spherical case **Artero-Guerrero, J. A.**, J. Pernas-Sánchez, F. Teixeira-Dias, D. Varas, J. Lopez-Puente , ESMC, 2018, Bologna

C.3. Research projects

1. BEDYN: Development of a methodology (test, measurement, analysis) to characterize the behaviour of composite structures under dynamic loading. European Commission Research Executive Agency. PI: **Artero Guerrero, José Alfonso** . 2020-2023 193.750€.

2. National project. RECYPEEK – Dynamic Behaviour of recycled composite PEEK for the automotive industry. PI: **Artero Guerrero, José Alfonso** & Pernas Sánchez, Jesús 2023-2024. 103.385€

3. Proyecto Interdisciplinar CAM RETOrenovable-CM-UC3M PI: **Artero Guerrero, José Alfonso** and M. Reyes Rodríguez. 2020-2022 60.000€.
4. Ayuda Contratación investigador predoctoral YEI-CAM. PI **Artero Guerrero, José Alfonso** 2020-2022 45000€.
5. Ayuda Contratación investigador predoctoral YEI-CAM. PI **Artero Guerrero, José Alfonso** 2018 25000€.
6. DPI2017-85073-R, Análisis y desarrollo de protecciones auxéticas para estructuras carbono/epoxi. Ministerio De Asuntos económicos y transformación Digital. PI. Varas Doval, David and Pernas Sánchez, Jesús.2018- 2021. 92.686€
7. GrapheneCore3, GrapheneCore3: Graphene Flagship Core Project 3. European Commission Research Executive Agency. PI: Lopez Puente, Jorge Uc3m 2020-2023. 522500€
8. GA-715873, ELEMENT: CROR Engine debris Middle level Impact and Mechanical test, COMISION EUROPEA, PI: Lopez Puente, Jorge, Uc3m 2016- 2019, 99.330€, Researcher.
9. GrapheneCore2, GrapheneCore2: Graphene Flagship Core Project 2. European Commission Research Executive Agency. PI: Lopez Puente, Jorge Uc3m 2018-2020. 250.000€
10. DPI2013-41094-R, Análisis del comportamiento de laminados carbono/epoxis sometidos a impactos de fragmentos de laminados carbono/epoxi, Ministerio De economía, Industria Y Competitividad, PI: López Puente, Jorge, Uc3m 2014- 2017, 44.770€, Researcher.

C.4. Contracts, technological or transfer merits

1. FUSELAGE. AIRBUS OPERATIONS, S.L, PI: **Artero Guerrero, José Alfonso**, Pernas Sanchez, Jesus and Jorge López Puente, 13/12/2019- 13/12/2022.
2. RENA-100-SS00-FCT-0002- Ensayos dinámicos de caracterización de aceros y uniones soldadas, NAVANTIA, PI: Pernas Sánchez, Jesus and **Artero Guerrero, José Alfonso**, 28/04/2017- 01/10/2017.
3. Ensayos de impacto de esfera de hielo sobre paneles de titanio microperforado. AERNNOVA AEROSPACE S.A.U. PI: Pernas Sánchez, Jesus and **Artero Guerrero, José Alfonso** 27/02/2018 - 26/05/2018
4. Bird simulated impacts against composite structures (BiSIACS), Aernnova Engineering Division S.A.U., **Artero Guerrero, José Alfonso** , 29/07/2016- 29/10/2016, Investigador principal.
5. Soft body impacts against composite structures (SBIACS), Aernnova Engineering Division S.A.U. **Artero Guerrero, José Alfonso** , 17/03/2016- 16/06/2016, Investigador principal.
6. Numerical modelling of self piercing riveting, Fundación Tecnalia Reasearch & Innovation Noviembre 2018 - Febrero 2019, **Artero Guerrero, José Alfonso** y Jesús Pernas Sánchez
7. Simulated bird (gelatine) impact in doubled curved panels. Hail (parallelepiped) impact on doubled curved panels, AERNNOVA ENGINEERING DIVISION S.A, Julio 2018 - Septiembre 2018 IP: **Artero Guerrero, José Alfonso** y Jesús Pernas Sánchez
8. Low level ballistic impacts on metallic and composite plates for method validation. AIRBUS OPERATIONS, S.L., López-Puente, J. (Universidad Carlos III de Madrid), 2013-2014.
9. Conceptos de arquitecturas del rear end (CURVED), AERNNOVA ENGINEERING SOLUTIONS IBERICA, S.A., López-Puente, J. (Universidad Carlos III de Madrid), 2013- 2014.