



Rocío Carratalá Sáez

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Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

I obtained my B.Sc. in Computational Mathematics from Universitat Jaume I (UJI) of Castellón (Spain) in 2015, M.Sc. in Parallel and Distributed Computing from the Universitat Politècnica de València (Spain) in 2016, and Ph.D. in Computer Science from the UJI in 2021, carried out with a pre-doctoral grant-contract from the Ministry of Education, Science and Sport for University Teacher Training, MECDFPU, and obtaining an excellent cum laude grade. After obtaining my Ph.D., I got a postdoctoral contract at the Universidad de Valladolid (UVa), that I enjoyed until last September 2022, when I became an Assistant Professor at the mentioned university, in the Department of Computer Science.

My main research interest is High Performance Computing, particularly focused on the parallelization of linear algebra operations. Specifically, I specialize in operations that require flexible and complex data storage, as well as in the application of parallelism strategies tailored to the specific needs of each application. I have developed parallel implementations using the OpenMP, OmpSs and StarPU programming models and several existing software packages such as H2Lib, Chameleon and Hmat-oss. I have also used CUDA (from NVIDIA) to design and implement kernels that enable heterogeneous executions which include GPU devices. Moreover, I am also familiar with the use of MPI to let the applications be executed in distributed memory scenarios.

During my thesis, most of my first implementations were integrated into the European H2020 research project INTERTWinE (<http://www.intertwine-project.eu>), as software available to test interoperability issues and evaluate performance on exascale-oriented supercomputers. In addition, thanks to OmpSs-2, I designed a parallelization of the H2Lib library (<http://www.h2lib.org/>) that achieves a speedup of 42x by using up to 48 cores in the supercomputer. using up to 48 cores on the Marenostrum 4 supercomputer at the Barcelona Supercomputing Center (BSC). Besides, by leveraging StarPU and the two existing software packages Chameleon and Hmat-oss, I developed H-Chameleon, an open-source library to operate with a "regularised" version of the with a "regularised" version of H-Matrices called Tile H-Matrices (a.k.a. Lattice H-Matrices).

Since the start of my postdoc, I am focused on fluid dynamic applications, and I have implemented two software packages called UVaFlow (<https://github.com/uva-trasgo/UVaFlow>) and UVaFTLE (<https://github.com/uva-trasgo/UVaFTLE>). These packages are open-source (as I believe that it is important contributing to open science) and incorporate Docker containers to ease reproducibility.



With respect to the research groups with which I have collaborated, during my PhD, I was part of the HPC&A research team of the UJI (<http://www.hpca.uji.es/>) and I also collaborated with researchers from BSC (Barcelona, Spain), Institut für Informatik at Christian-Albrechts-Universität zu Kiel (Germany), and the HiePACS research team (<https://team.inria.fr/hiepacs/>) at Inria - Bordeaux (France). Now, I am part of the Trasgo research group of the UVa. I have carried out several research stays in the above-mentioned centers, in particular: 21 days in Kiel, one month in BSC, and six months in Inria.

Regarding my teaching experience, I have taught a total of 370h (37 ECTS credits), distributed in the Degree in Computer Engineering at the UVa (80h), the Degree in Computer Engineering at the Universitat Oberta de Catalunya (120h), and the degrees of Computer Science, Mathematical Computation and Video Game Design and Development at the UJI (170h). In addition, I have also taught unofficial courses funded by the Department of Computer Science in order to promote High Performance Computing or to introduce basic programming concepts to undergraduate students of Computer Science. I am also interested in educational research, and I have been part of some publications that explore how to improve the HPC skills of undergraduate students. Moreover, I have participated in three research projects focused innovation in education.

I am currently awarded with ACSUCYL (Agencia para la Calidad del Sistema Universitario de Castilla y León) accreditations for "Profesor Ayudante Doctor" and "Profesor Contratado Doctor".



General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

The main contributions during my academic career have been published as:

- 4 JCR indexed journals papers (one Q1, two Q2, one Q3)
- 1 international journal paper not indexed in the JCR
- 5 international conferences with proceedings
- 4 national conferences with proceedings
- 7 international conferences without proceedings
- 1 poster in an international conference

In addition, I have collaborated as a reviewer in several international journals and conferences and I have also been a member of different program committees and organizers of several international conferences.

I have carried out international research stays with a total duration of seven months and 21 days in different research centres of international prestige: Inria (Bordeaux, France), CAU-Kiel (Germany) and Barcelona Supercomputing Center - BSC (Spain).

Based on SCOPUS and Google Scholar, these are my metrics:

- H-index: 3 (WOS); 3 (SCOPUS); 5 (Google Scholar); 5 (Research Gate)
- Total times cited: 13 (WOS); 19 (SCOPUS); 50 (Google Scholar); 35 (Research Gate)



Rocío Carratalá Sáez

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ResearcherID: AAJ-3371-2021
Date of birth: 08/05/1993
Gender: Female
Nationality: Spain
Country of birth: Spain
Aut. region/reg. of birth: Valencian Community
Contact province: Valladolid
City of birth: Nules
Contact address: Departamento de Informática - Escuela de Ingeniería Informática
Rest of contact address: Paseo de Belén
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Current professional situation

Employing entity: Universidad de Valladolid **Type of entity:** University
Department: Departamento de Informática, Escuela de Ingeniería Informática
Professional category: Assistant Professor **Educational Management (Yes/No):** No
City employing entity: Valladolid, Castile and León, Spain
Email: rocio@infor.uva.es
Start date: 19/09/2022
Type of contract: Temporary employment contract **Dedication regime:** Full time

Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad de Valladolid	Postdoc	01/06/2021
2	Universidad Jaime I	Researcher	15/01/2021
3	Universidad Jaime I	Ph.D. Candidate (MECD-FPU)	01/10/2016
4	Universidad Jaime I	Researcher	01/01/2016
5	Universidad Jaime I	Researcher	01/10/2015

	Employing entity	Professional category	Start date
6	Universidad Jaime I	Research Collaboration Grant (MECD - Beca de Colaboración)	01/11/2014
7	PaynoPain	Internship	01/02/2015
8	Universidad Jaime I	Student research grant	16/10/2013

- 1** **Employing entity:** Universidad de Valladolid **Type of entity:** University
Department: Informática, Escuela de Ingeniería Informática
City employing entity: Valladolid, Castile and León, Spain
Professional category: Postdoc **Educational Management (Yes/No):** No
Email: rocio@infor.uva.es
Start-End date: 01/06/2021 - 18/09/2022 **Duration:** 1 year - 3 months - 18 days
Type of contract: Grant-assisted student (pre or post-doctoral, others)
Dedication regime: Full time
Applicability in teaching and/or research: Research in the context of the project "VA226P20 PROPHET-2: Abstraction and generalization of parallelization strategies for scientific and engineering applications to be deployed in heterogenous and reconfigurable interconnected platforms". Besides, teaching a maximum of 80h/year.
- 2** **Employing entity:** Universidad Jaime I **Type of entity:** University
Department: Ingeniería y Ciencia de los Computadores, Escuela Superior de Tecnología y Ciencias Experimentales
City employing entity: Castellón de la Plana, Valencian Community, Spain
Professional category: Researcher **Educational Management (Yes/No):** No
Email: rcarrata@uji.es
Start-End date: 15/01/2021 - 31/05/2021 **Duration:** 4 months - 15 days
Type of contract: Temporary employment contract
Dedication regime: Full time
Performed tasks: Research in the project "TIN2017-82972-R Técnicas Algorítmicas para Computación de Alto Rendimiento Consciente del Consumo Energético y Resistente a Errores".
- 3** **Employing entity:** Universidad Jaime I **Type of entity:** University
Department: Departamento de Ingeniería y Ciencia de los Computadores, Escuela Superior de Tecnología y Ciencias Experimentales
City employing entity: Castelló de la Plana, Valencian Community, Spain
Professional category: Ph.D. Candidate (MECD-FPU)
Start-End date: 01/10/2016 - 31/12/2020 **Duration:** 4 years - 3 months
Type of contract: Grant-assisted student (pre or post-doctoral, others)
Dedication regime: Full time
Field of management activity: University
- 4** **Employing entity:** Universidad Jaime I **Type of entity:** University
Department: Departamento de Ingeniería y Ciencia de Computadores, Escuela Superior de Tecnología y Ciencias Experimentales
City employing entity: Castellón de la Plana, Valencian Community, Spain
Professional category: Researcher **Educational Management (Yes/No):** No
Start-End date: 01/01/2016 - 30/09/2016 **Duration:** 9 months
Type of contract: Temporary employment contract
Performed tasks: Researcher financed by the research project "TIN2014-53495-R COHEBACO: COMPUTACIÓN HETEROGÉNEA DE BAJO CONSUMO" in the research group "High Performance Computing and Architectures".



Field of management activity: University

- 5** **Employing entity:** Universidad Jaime I **Type of entity:** University
Department: Departamento de Ingeniería y Ciencia de Computadores, Escuela Superior de Tecnología y Ciencias Experimentales
City employing entity: Castellón, Valencian Community, Spain
Professional category: Researcher **Educational Management (Yes/No):** No
Start-End date: 01/10/2015 - 31/12/2015 **Duration:** 3 months
Type of contract: Temporary employment contract
Dedication regime: Full time
Performed tasks: Researcher financed by the research project "P11B2013-20 Computación consciente de la proporcionalidad energética en arquitecturas de bajo consumo".
Field of management activity: University
- 6** **Employing entity:** Universidad Jaime I **Type of entity:** University
Department: Departamento de Ingeniería y Ciencia de Computadores, Escuela Superior de Tecnología y Ciencias Experimentales
City employing entity: Castellón de la Plana, Valencian Community, Spain
Professional category: Research Collaboration **Educational Management (Yes/No):** No
Grant (MECD - Beca de Colaboración)
Start-End date: 01/11/2014 - 30/06/2015 **Duration:** 8 months
Type of contract: Grant-assisted student (pre or post-doctoral, others)
Performed tasks: Study and develop metrics and algorithms for clinical guides employing PROforma programming language.
Field of management activity: University
- 7** **Employing entity:** PaynoPain **Type of entity:** Business
City employing entity: Castellón de la Plana, Valencian Community, Spain
Professional category: Internship **Educational Management (Yes/No):** No
Start-End date: 01/02/2015 - 30/04/2015 **Duration:** 3 months
Type of contract: Bachelor External Work Placement
Dedication regime: Part time
Performed tasks: Implementing C++ routines for geometrical transformations of 3D bodies to extend Unreal Engine software functionalities.
- 8** **Employing entity:** Universidad Jaime I **Type of entity:** University
Department: Mathematics Department, Escuela Superior de Tecnología y Ciencias Experimentales
City employing entity: Castellón, Valencian Community, Spain
Professional category: Student research grant **Educational Management (Yes/No):** No
Start-End date: 16/10/2013 - 31/03/2014 **Duration:** 5 months - 15 days
Type of contract: Grant-assisted student (pre or post-doctoral, others)
Dedication regime: Part time
Performed tasks: Research collaboration in the project "Isoperimetría extrínseca, crecimiento del volumen y topología de subvariedades en una variedad con un polo. Aplicaciones a la teoría de la información cuántica".



Education

University education

1st and 2nd cycle studies and pre-Bologna degrees

University degree: Higher degree

Name of qualification: Graduado o Graduada en Matemática Computacional

City degree awarding entity: Castellón de la Plana, Valencian Community, Spain

Degree awarding entity: Universidad Jaime I **Type of entity:** University

Date of qualification: 30/05/2015

Prize: End of degree award

Foreign qualification: 8,99

Doctorates

Doctorate programme: Computer Science

Degree awarding entity: Universidad Jaime I **Type of entity:** University

City degree awarding entity: Castelló de la Plana, Valencian Community, Spain

Date of degree: 26/03/2021

European doctorate: Yes

Thesis title: Analysis of Parallelization Strategies in the context of Hierarchical Matrix Factorizations

Thesis director: Enrique Salvador Quintana Ortí

Thesis co-director: José I. Aliaga Estellés

Obtained qualification: Excellent Cum Laude

Other postgraduate university studies

Type of education: Masters

Postgraduate qualification: Máster en computación paralela y distribuida

City degree awarding entity: Valencia, Valencian Community, Spain

Degree awarding entity: Universidad Politécnica de Valencia **Type of entity:** University

Date of qualification: 22/07/2016

Obtained qualification: 8,9



Specialised, lifelong, technical, professional and refresher training (other than formal academic and healthcare studies)

- 1** **Training title:** Introducción al ecosistema de información científica y al perfil digital del investigador
Awarding entity: Universidad de Valladolid **Type of entity:** University
End date: 30/03/2022 **Duration in hours:** 10 hours
- 2** **Type of training:** Course
Training title: Winter School on Hierarchical Matrices
City awarding entity: Kiel, Schleswig-Holstein, Germany
Awarding entity: Kiel University **Type of entity:** University
End date: 07/04/2017 **Duration in hours:** 26 hours
- 3** **Type of training:** Course
Training title: Global Address Space Programming Interface (GASPI) Course
City awarding entity: Ostrava, Moravskoslezsko, Czech Republic
Awarding entity: IT4Innovations National Supercomputing Center in Ostrava **Type of entity:** Public Research Body
Training manager: Christian Simmendinger
End date: 03/03/2017 **Duration in hours:** 11 hours
- 4** **Type of training:** Course
Training title: Investigación y Perspectiva de Género
City awarding entity: Castellón de la Plana, Valencian Community, Spain
Awarding entity: Universidad Jaime I **Type of entity:** University
End date: 28/02/2017 **Duration in hours:** 15 hours
- 5** **Type of training:** Course
Training title: 7th Workshop on Matrix Equations and Tensor Techniques (METT VII)
City awarding entity: Pisa, Toscana, Italy
Awarding entity: University of Pisa **Type of entity:** University
End date: 14/02/2017 **Duration in hours:** 9 hours
- 6** **Type of training:** Course
Training title: Recursos Bibliográficos para la Investigación y Conocimiento Abierto
City awarding entity: Castellón de la Plana, Valencian Community, Spain
Awarding entity: Universidad Jaime I **Type of entity:** University
End date: 13/01/2017 **Duration in hours:** 30 hours
- 7** **Type of training:** Course
Training title: Comunicación, Difusión y Divulgación de la Investigación
City awarding entity: Castellón de la Plana, Valencian Community, Spain
Awarding entity: Universidad Jaime I **Type of entity:** University
End date: 28/11/2016 **Duration in hours:** 25 hours
- 8** **Type of training:** Course
Training title: Seguridad y Salud en las Tareas de Investigación
City awarding entity: Castellón de la Plana, Valencian Community, Spain
Awarding entity: Universidad Jaime I **Type of entity:** University



End date: 24/11/2016

Duration in hours: 10 hours

9 Type of training: Course
Training title: School on Complex Networks and Graph Models
City awarding entity: Eindhoven, Holland
Awarding entity: Eurandom
End date: 08/12/2015

10 Type of training: Course
Training title: Programación con JavaScript: Fundamentos
City awarding entity: Castelló de la Plana, Valencian Community, Spain
Awarding entity: Universidad Jaime I
End date: 05/02/2013
Type of entity: University
Duration in hours: 30 hours

11 Type of training: Course
Training title: Técnicas de Singularidades y Geometría en Análisis de Imagen
City awarding entity: Valencia, Valencian Community, Spain
Awarding entity: Universitat de València
End date: 06/07/2012
Type of entity: University
Duration in hours: 12 hours

Attended advanced, improvement and innovative teacher training and new technology courses and seminars focused on improving teaching

1 Title of course/seminar: Prácticas y usos seguros en Informática e Identidad digital en la docencia
Organising entity: Universidad de Valladolid
Faculty, institute or centre: Escuela de Ingeniería Informática
Duration in hours: 10 hours
Start-End date: 10/10/2022 - 24/10/2022
Type of entity: University

2 Title of course/seminar: ¿Cómo realizar una evaluación orientada para el aprendizaje?
Organising entity: Universidad de Valladolid
Duration in hours: 15 hours
Start-End date: 01/04/2022 - 06/04/2022
Type of entity: University

3 Title of course/seminar: Motivación y aprendizaje para docentes. Su gestión en el aula
Organising entity: Universidad de Valladolid
Duration in hours: 15 hours
Start-End date: 21/02/2022 - 04/03/2022
Type of entity: University

4 Title of course/seminar: Diseña tu asignatura online
Organising entity: Universidad de Valladolid
Duration in hours: 30 hours
Start-End date: 18/10/2021 - 15/11/2021
Type of entity: University

5 Title of course/seminar: Enseñanza abierta y aprendizaje online. Redes sociales para la innovación docente
Organising entity: Universidad de Valladolid
Duration in hours: 24 hours
Start-End date: 11/10/2021 - 05/11/2021
Type of entity: University



- 6** **Title of course/seminar:** Gamificación online en la educación superior
Organising entity: Universidad de Valladolid **Type of entity:** University
Duration in hours: 7 hours
Start-End date: 18/10/2021 - 29/10/2021
- 7** **Title of course/seminar:** Modelos alternativos de evaluación en línea
Goals of the course/seminar: Alternative evaluation models for online teaching
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Duration in hours: 10 hours
Start-End date: 05/10/2020 - 19/10/2020
- 8** **Title of course/seminar:** Tutorización eficiente de TFG y TFM a distancia
Goals of the course/seminar: Strategies to efficiently supervise final Degree and Masters works remotely
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Duration in hours: 6 hours
Start-End date: 15/09/2020 - 02/10/2020
- 9** **Title of course/seminar:** Estrategias y recursos para el blended learning o aprendizaje semipresencial
Goals of the course/seminar: Blended learning strategies
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Duration in hours: 10 hours
Start-End date: 14/09/2020 - 27/09/2020
- 10** **Title of course/seminar:** Programa de Formación del Profesorado Novel: Capacitación para la Docencia Universitaria (year II of II)
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Faculty, institute or centre: Vicerrectorado de Estudiantes, Empleo e Innovación Educativa
Duration in hours: 200 hours
Start-End date: 01/09/2019 - 31/07/2020 **Length:** 11 months
Target group profile: Professors of the Universidad Jaime I who have had a contractual link with the university during less than three years and have been assigned, at least, 3 teaching credits the year they initiate the program.
- 11** **Title of course/seminar:** Planificación de la docencia universitaria
Goals of the course/seminar: Clues about how to properly plan university teaching
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Duration in hours: 8 hours
Start-End date: 09/01/2020 - 10/01/2020
- 12** **Title of course/seminar:** Uso del Aula Virtual. MÓDULO 6: Introducción a los cuestionarios
Goals of the course/seminar: Using the Virtual Environment Classroom, specially focused on questionnaires
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Duration in hours: 3 hours
Start-End date: 08/01/2020 - 08/01/2020



- 13** **Title of course/seminar:** Gestión de autoevaluación, evaluación por compañeros y grupos de trabajo mediante CoRubrics
Goals of the course/seminar: Learn about auto-evaluating methodologies, pair-evaluating and teamwork using CoRubrics
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Duration in hours: 2 hours
Start-End date: 22/10/2019 - 22/10/2019
- 14** **Title of course/seminar:** Programa de Formación del Profesorado Novel: Iniciación a la Docencia Universitaria (year I of II)
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Faculty, institute or centre: Vicerrectorado de Estudiantes, Empleo e Innovación Educativa
Duration in hours: 75 hours
Start-End date: 29/10/2018 - 31/07/2019 **Length:** 9 months - 3 days
Target group profile: Professors of the Universidad Jaime I who have had a contractual link with the university during less than three years and have been assigned, at least, 3 teaching credits the year they initiate the program.
- 15** **Title of course/seminar:** Seminario ApS. Justificación, diseño y evaluación de programas de aprendizaje-servicio: una apuesta para la investigación-acción universitaria
Goals of the course/seminar: Learn about service-learning teaching techniques, which are focused on finding an actual problem in the social environment of the students and motivate them to offer a solution in the context of a certain subject (or a set of them).
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Duration in hours: 4 hours
Start-End date: 04/02/2019 - 04/02/2019
- 16** **Title of course/seminar:** Recursos de conducta para la docencia en valenciano
Goals of the course/seminar: Learn about students necessities and opportunities when teaching using catalan language.
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Duration in hours: 8 hours
Start-End date: 14/01/2019 - 14/01/2019
- 17** **Title of course/seminar:** Indiana Jones y la Neurociencia: reflexionando sobre las estrategias de enseñanza-aprendizaje
Goals of the course/seminar: Learn and analyze different teaching-learning strategies from neuroscience perspective.
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Duration in hours: 2 hours
Start-End date: 11/10/2018 - 11/10/2018
- 18** **Title of course/seminar:** Clase invertida en la enseñanza del Diseño y Desarrollo de Videojuegos
Goals of the course/seminar: Learn how to apply innovative teaching techniques, concretely "flipped classroom", in the subjects of the Bachelor's Degree in Video Game Design and Development.
City organizing entity: Castellón de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University



Duration in hours: 5 hours

Start-End date: 11/05/2018 - 11/05/2018

19 Title of course/seminar: Yo les enseño, pero no aprenden ¿qué está yendo mal?

Goals of the course/seminar: Learn how to analyze students needs and properly adapt the lessons in the context of university teaching.

City organizing entity: Castellón de la Plana, Valencian Community, Spain

Organising entity: Universidad Jaime I

Type of entity: University

Duration in hours: 4 hours

Start-End date: 02/10/2017 - 16/10/2017

20 Title of course/seminar: Formación práctica para la edición de vídeos para la docencia

Goals of the course/seminar: Learn to create (as a professor) good videos to support university teaching.

City organizing entity: Castellón de la Plana, Valencian Community, Spain

Organising entity: Universidad Jaime I

Type of entity: University

Duration in hours: 3 hours

Start-End date: 02/12/2016 - 02/12/2016

Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
German	A2	A2	A2	A2	A2
English	B2	B2	B2	B2	B2
Catalan	C2	C2	C2	C2	C2
Spanish	C2	C2	C2	C2	C2

Teaching experience

General teaching experience

1 Type of teaching: Official teaching

Name of the course: Fonaments de Programación

Type of programme: Engineering

Type of subject: Obligatory

University degree: Graduado o Graduada en Ingeniería Informática

Course given: 2021/2022

Start date: 01/02/2022

End date: 30/07/2022

Type of hours/ ECTS credits: Hours

Hours/ECTS credits: 60

Entity: Universitat Oberta de Catalunya

Type of entity: University

City of entity: Spain

Subject language: Spanish

2 Type of teaching: Official teaching

Name of the course: Supercomputación y Big Data

Type of programme: Engineering

Type of subject: Obligatory

Type of teaching: Practical work (classroom-problems)



University degree: Máster en Ingeniería Informática

Course given: 2021/2022

Start date: 01/09/2021

End date: 30/07/2022

Type of hours/ ECTS credits: Hours

Hours/ECTS credits: 25

Entity: Universidad de Valladolid

Type of entity: University

Department: Informática

City of entity: Valladolid, Castile and León, Spain

Subject language: Spanish

3 Type of teaching: Official teaching

Name of the course: Algoritmos y computación

Type of programme: Master's degree

Type of teaching: Laboratory work

Type of subject: Optional

University degree: Graduado o Graduada en Ingeniería Informática

Course given: 2021/2022

Start date: 01/09/2021

End date: 30/07/2022

Type of hours/ ECTS credits: Hours

Hours/ECTS credits: 30

Entity: Universidad de Valladolid

Type of entity: University

Faculty, institute or centre: Escuela de Ingeniería Informática

Department: Informática

City of entity: Valladolid, Castile and León, Spain

Subject language: Spanish

4 Type of teaching: Official teaching

Name of the course: Computación Paralela y Cálculo Distribuido

Type of programme: Master's degree

Type of teaching: Practical work (classroom-problems)

Type of subject: Optional

University degree: Máster en Matemáticas

Course given: 2021/2022

Start date: 01/09/2021

End date: 30/07/2022

Type of hours/ ECTS credits: Hours

Hours/ECTS credits: 10

Entity: Universidad de Valladolid

Type of entity: University

Faculty, institute or centre: Escuela de Ingeniería Informática

Department: Informática

City of entity: Valladolid, Castile and León, Spain

Subject language: Spanish

5 Type of teaching: Official teaching

Name of the course: Computación Paralela y Cálculo Distribuido

Type of programme: Master's degree

Type of teaching: In person theory

Type of subject: Optional

University degree: Máster en Matemáticas

Course given: 2021/2022

Start date: 01/09/2021

End date: 30/07/2022

Type of hours/ ECTS credits: Hours

Hours/ECTS credits: 15

Entity: Universidad de Valladolid

Type of entity: University

Faculty, institute or centre: Escuela de Ingeniería Informática



Department: Informática
City of entity: Valladolid, Castile and León, Spain
Subject language: Spanish

6 **Type of teaching:** Official teaching
Name of the course: Fonaments de Programación
Type of programme: Engineering
Type of subject: Obligatory
University degree: Graduado o Graduada en Ingeniería Informática
Course given: 2021/2022
Start date: 01/09/2021 **End date:** 31/01/2022
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 60
Entity: Universitat Oberta de Catalunya **Type of entity:** University
City of entity: Spain
Subject language: Catalan

7 **Type of teaching:** Official teaching
Name of the course: Tecnología de Computadores
Type of programme: Engineering **Type of teaching:** Practical work (classroom-problems)
Type of subject: Obligatory
Assessment type: Survey
University degree: Graduado o Graduada en Diseño y Desarrollo de Videojuegos
Start date: 27/01/2020 **End date:** 22/05/2020
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 60
Entity: Universidad Jaime I **Type of entity:** University
Faculty, institute or centre: Escuela Superior de Tecnología y Ciencias Experimentales
Department: Departamento de Ingeniería y Ciencia de los Computadores
City of entity: Castellón de la Plana, Valencian Community, Spain
Assessment type: Survey
Mark obtained: 4.53 **Top mark possible:** 5
Subject language: Spanish

8 **Type of teaching:** Official teaching
Name of the course: Trabajo Final de Estudios (TFE)
Type of programme: Formación Permanente (FP)
University degree: Curso de formación pedagógica y didáctica para profesorado técnico FP
Start date: 07/01/2020 **End date:** 08/05/2020
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 20
Entity: Universitat de València **Type of entity:** University
Mark obtained: APTO
Subject language: Spanish

9 **Type of teaching:** Official teaching
Name of the course: Practicum para Profesorado Técnico
Type of programme: Formación Permanente (FP)
University degree: Curso de formación pedagógica y didáctica para profesorado técnico FP
Start date: 13/01/2020 **End date:** 03/04/2020
Type of hours/ ECTS credits: Hours



Hours/ECTS credits: 200

Entity: Universitat de València

Mark obtained: APTO

Subject language: Spanish

Type of entity: University

10 Type of teaching: Official teaching

Name of the course: Tecnología de Computadores

Type of programme: Engineering

Type of subject: Obligatory

Assessment type: Survey

University degree: Graduado o Graduada en Diseño y Desarrollo de Videojuegos

Start date: 24/01/2019

End date: 22/05/2019

Type of hours/ ECTS credits: Hours

Hours/ECTS credits: 30

Entity: Universidad Jaime I

Type of entity: University

Faculty, institute or centre: Escuela Superior de Tecnología y Ciencias Experimentales

Department: Departamento de Ingeniería y Ciencia de los Computadores

City of entity: Castellón de la Plana, Valencian Community, Spain

Assessment type: Survey

Mark obtained: 4.73

Top mark possible: 5

Subject language: Catalan

11 Type of teaching: Official teaching

Name of the course: Informática Básica

Type of programme: Engineering

Type of subject: Obligatory

Assessment type: Survey

University degree: Graduado o Graduada en Diseño y Desarrollo de Videojuegos

Start date: 10/09/2018

End date: 21/12/2018

Type of hours/ ECTS credits: Hours

Hours/ECTS credits: 30

Entity: Universidad Jaime I

Type of entity: University

Faculty, institute or centre: Escuela Superior de Tecnología y Ciencias Experimentales

Department: Departamento de Ingeniería y Ciencia de los Computadores

City of entity: Castellón de la Plana, Valencian Community, Spain

Assessment type: Survey

Mark obtained: 4.73

Top mark possible: 5

Subject language: Catalan

12 Type of teaching: Official teaching

Name of the course: Bachelor's Thesis - Final Project

Type of programme: Engineering

Type of subject: Final Project

University degree: Graduado o Graduada en Diseño y Desarrollo de Videojuegos

Start date: 25/01/2018

End date: 03/06/2018

Type of hours/ ECTS credits: Hours

Hours/ECTS credits: 6

Entity: Universidad Jaime I

Type of entity: University

Faculty, institute or centre: Escuela Superior de Tecnología y Ciencias Experimentales

Department: Departamento de Ingeniería y Ciencia de los Computadores

City of entity: Castellón de la Plana, Valencian Community, Spain



Subject language: Spanish

- 13** **Type of teaching:** Official teaching
Name of the course: Arquitectura de Computadores
Type of programme: Engineering **Type of teaching:** Practical work (classroom-problems)
Type of subject: Obligatory
Assessment type: Survey
University degree: Graduado o Graduada en Ingeniería Informática
Start date: 25/01/2018 **End date:** 23/05/2018
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 39,6
Entity: Universidad Jaime I **Type of entity:** University
Faculty, institute or centre: Escuela Superior de Tecnología y Ciencias Experimentales
Department: Departamento de Ingeniería y Ciencia de los Computadores
City of entity: Castellón de la Plana, Valencian Community, Spain
Assessment type: Survey
Mark obtained: 4.52 **Top mark possible:** 5
Subject language: Catalan
- 14** **Type of teaching:** Official teaching
Name of the course: Arquitectura de Computadores
Type of programme: Engineering **Type of teaching:** Practical work (classroom-problems)
Type of subject: Obligatory
Assessment type: Survey
University degree: Graduado o Graduada en Matemática Computacional
Start date: 25/01/2018 **End date:** 23/05/2018
Type of hours/ ECTS credits: Hours
Hours/ECTS credits: 4,4
Entity: Universidad Jaime I **Type of entity:** University
Faculty, institute or centre: Escuela Superior de Tecnología y Ciencias Experimentales
Department: Departamento de Ingeniería y Ciencia de los Computadores
City of entity: Castellón de la Plana, Valencian Community, Spain
Assessment type: Survey
Mark obtained: 4.72 **Top mark possible:** 5
Subject language: Catalan

Experience supervising doctoral thesis and/or final year projects

- 1** **Project title:** gpBOT: un bot de Discord para encuestas gamificadas en actividades docentes
Type of project: End of course project
Entity: Universidad de Valladolid **Type of entity:** University
City of entity: Valladolid, Castile and León, Spain
Student: José Borge Torres
Obtained qualification: 9
Date of reading: 11/07/2021
- 2** **Project title:** Curso de formación pedagógica y didáctica para profesorado técnico FP - TFE
Type of project: Trabajo de Fin de Estudios (TFE)
Entity: Universitat de València **Type of entity:** University
Student: Manuel Paradis Villamil



Obtained qualification: APTO

Date of reading: 08/05/2020

3 Project title: Design and development of a 3D PC video game whose adaptative ecosystem is based on a directed graph

Type of project: End of course project

Entity: Universidad Jaime I

Type of entity: University

City of entity: Castellón de la Plana, Valencian Community, Spain

Student: Jesús Mayoral Itarte

Obtained qualification: 8.8

Date of reading: 03/06/2018

Teaching experience in courses and seminars for university teacher training

1 Type of event: Seminar

Name of the event: Jornada de la supercomputación @ UJI - Construye tu propio supercomputador con Raspberry Pi (segunda edición)

City organizing entity: Castelló de la Plana, Valencian Community, Spain

Organising entity: Universidad Jaime I

Type of entity: University

Aims of the course: Inicie undergraduate students in the High Performance Computing field through the usage of Raspberry Pi clusters

Hours of teaching: 10

Teaching language: Spanish

Teaching date: 10/11/2019

2 Type of event: Seminar

Name of the event: Programación móvil con MIT App Inventor

City organizing entity: Castelló de la Plana, Valencian Community, Spain

Organising entity: Universidad Jaime I

Type of entity: University

Aims of the course: Seminar to introduce basic programming concepts to Computer Science Engineering studenta

Hours of teaching: 10

Teaching language: Spanish

Teaching date: 30/09/2019

3 Type of event: Seminar

Name of the event: Taller de Introducción a la Programación de Altas Prestaciones (tercera edición)

City organizing entity: Castelló de la Plana, Valencian Community, Spain

Organising entity: Universidad Jaime I

Type of entity: University

Aims of the course: Seminar to introduce High Performance Computing to Computer Science Engineering students

Hours of teaching: 10

Teaching language: Spanish

Teaching date: 08/05/2019

4 Type of event: Seminar

Name of the event: Construye tu propio supercomputador con Raspberry Pi

City organizing entity: Castelló de la Plana, Valencian Community, Spain

Organising entity: Universidad Jaime I

Type of entity: University

Aims of the course: Seminar to introduce supercomputers concepts to Engineering students

Hours of teaching: 10

Teaching language: Spanish

Teaching date: 19/09/2018



5 **Type of event:** Seminar
Name of the event: Taller de Introducción a la Programación de Altas Prestaciones (segunda edición)
City organizing entity: Castelló de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Aims of the course: Seminar to introduce High Performance Computing to Computer Science Engineering students
Hours of teaching: 10 **Teaching language:** Spanish
Teaching date: 17/04/2018

6 **Type of event:** Seminar
Name of the event: Taller de Introducción a la Programación de Altas Prestaciones
City organizing entity: Castelló de la Plana, Valencian Community, Spain
Organising entity: Universidad Jaime I **Type of entity:** University
Aims of the course: Seminar to introduce High Performance Computing to Computer Science Engineering students
Hours of teaching: 10 **Teaching language:** Spanish
Teaching date: 10/05/2017

Educational or pedagogical publications, books, articles, etc.

Sergio Iserte Agut; Sandra Catalán Pallarés; Rocío Carratalá Sáez; Sergio López Huguet. Construya su propio supercomputador con Raspberry Pi, Marcombo. 2021. ISBN 978-84-267-3281-1

Name of the materials: Book/manual

Format: Book

Participation in innovative teaching projects

1 **Project title:** Generalizando la integración de gamificación competitiva y colaborativa de forma ágil (IV)
City of entity: Valladolid, Castile and León, Spain
Type of participation: Team member
Contribution to the project: Inclusion of innovative techniques in teaching; participation in education research papers.
Dedication regime: Part time
Name of the main researcher: Arturo González Escribano
Funding entity: Universidad de Valladolid **Type of entity:** University
Type of call: Competitive
Geographical area: University
Start-End date: 01/09/2021 - 31/08/2023 **Duration:** 1 year

2 **Project title:** Generalizando la integración de gamificación competitiva y colaborativa de forma ágil (III)
City of entity: Valladolid, Castile and León, Spain
Type of participation: Team member
Contribution to the project: Inclusion of innovative techniques in teaching; participation in education research papers.
Dedication regime: Part time
Name of the main researcher: Arturo González Escribano
Number of participants: 9
Funding entity: Universidad de Valladolid **Type of entity:** University
Type of call: Competitive

**Geographical area:** University**Start-End date:** 01/09/2021 - 31/08/2022**Duration:** 1 year

- 3 Project title:** (3862/20) Continuación de la mejora e innovación docente en la aplicación de la “flipped classroom”
City of entity: Castellón de la Plana, Valencian Community, Spain
Type of participation: Team member
Contribution to the project: Inclusion of innovative techniques in teaching; participation in education research papers.
Dedication regime: Part time
Number of participants: 16
Funding entity: Universidad Jaime I **Type of entity:** University
Type of call: Competitive
Geographical area: University
Start-End date: 01/01/2020 - 15/12/2020

Scientific and technological experience

Research and development groups/teams

- 1 Name of the group:** TRASGO Research Group
Aims of the group: Development of programming models, runtime systems, and tools for parallel heterogeneous systems. Parallel solutions to computationally-intensive problems.
Name of principal investigator: Diego R. Llanos Ferraris **Number of members in the group:** 7
Type of collaboration: Co-authorship of publications
City of group: Valladolid, Castile and León, Spain
Affiliation entity: Universidad de Valladolid **Type of entity:** University
Start date: 01/06/2021
- 2 Name of the group:** High-End Parallel Algorithms for Challenging Numerical Simulations (HiePACS)
Aims of the group: Perform efficiently frontier simulations arising from challenging research and industrial multiscale applications.
Name of principal investigator: Luc Giraud **Number of members in the group:** 27
Type of collaboration: Co-authorship of publications
City of group: Bordeaux, Aquitaine, France
Affiliation entity: Bordeaux INP, Bordeaux University and CNRS **Type of entity:** Public Research Body
Relevant results: H-Chameleon library; Publication in PDSEC Workshop (IPDPSW) in 2020 entitled "Tiled Algorithms for Efficient Task-Parallel H-Matrix Solvers"; several related talks in conferences without proceedings.
Start date: 01/07/2018
- 3 Name of the group:** Institut für Informatik, Mathematisches Seminar
Aims of the group: Fast methods for elliptic partial differential equations and boundary integral equations.
Type of collaboration: Co-authorship of publications
City of group: Kiel, Germany
Affiliation entity: Christian-Albrechts-Universität zu Kiel **Type of entity:** University (CAU Kiel)
Relevant results: Publication in Journal of Computational Science in 2019 entitled "Exploiting nested task-parallelism in the H-LU factorization"; several related talks in conferences without proceedings.



Start date: 03/04/2017

- 4 Name of the group:** Programming Models - Computer Sciences Department
Aims of the group: Investigate new and current programming paradigms and the associated runtime system support to provide high performance to parallel applications.
Name of principal investigator: Xavier Martorell Bofill
Type of collaboration: Co-authorship of publications
City of group: Barcelona, Catalonia, Spain
Affiliation entity: Barcelona Supercomputing Center **Type of entity:** Public Research Body
Relevant results: Publication in Journal of Computational Science in 2019 entitled "Exploiting nested task-parallelism in the H-LU factorization"; several related talks in conferences without proceedings.
Start date: 01/10/2016
- 5 Name of the group:** High-Performance Computing and Architectures
Aims of the group: High Performance Computing, focused on the resolution of matrix computing problems on reigning processors (superscalars, VLIW), hardware accelerators (GPU, Cell B.E.), and parallel systems (multi-core processors, SMP, NUMA and computer clusters), the optimization of applications and software packages for scientific and engineering calculation, and the hardware-software co-design, reconfigurable computing and architecture, and hardware compilation.
Name of principal investigator: José Ignacio Alliaga **Number of members in the group:** 19 Estellés
Type of collaboration: Co-authorship of projects and their development
City of group: Castellón de la Plana, Valencian Community, Spain
Affiliation entity: Universidad Jaime I **Type of entity:** University
Relevant results: Ph.D. Thesis entitled "Analysis of Parallelization Strategies in the context of Hierarchical Matrix Factorizations" (and associated publications in journals and conferences).
Start date: 01/10/2015
- 6 Name of the group:** Ingeniería del Conocimiento
Aims of the group: Knowledge-based systems, clinical decision support systems and their interoperability, business knowledge modeling, and corporate social responsibility.
Name of principal investigator: María del Mar Marcos **Number of members in the group:** 6 López
Type of collaboration: Co-authorship of projects and their development
Affiliation entity: Universidad Jaime I **Type of entity:** University
Relevant results: I was awarded with a MECD Collaboration Grant and I was part of the design of Proforma language algorithms.
Start date: 01/11/2014 **Duration:** 8 months
- 7 Name of the group:** Geometría Diferencial y Estereología
Aims of the group: Riemannian geometry, estereology, and differential characteristics of 3D biomedical images analysis.
Name of principal investigator: Vicente José Palmer **Number of members in the group:** 3 Andreu
Type of collaboration: Co-authorship of projects and their development
City of group: Castellón de la Plana, Valencian Community, Spain
Affiliation entity: Universidad Jaime I **Type of entity:** University
Relevant results: Bachelor's Thesis - Los cuaterniones y su importancia en la representación gráfica por ordenador (URL: <http://repositori.uji.es/xmlui/handle/10234/139036>)
Others: I was part of the Universitat Jaume I Bachelor Students Research Initiation Program, which focuses on introducing Scientific Research to students since the beginning of their studies.
Start date: 09/01/2011 **Duration:** 4 years

Scientific or technological activities

R&D projects funded through competitive calls of public or private entities

- 1** **Name of the project:** Computación consciente de la proporcionalidad energética en arquitecturas de bajo consumo
Geographical area: Regional
Degree of contribution: Researcher
Entity where project took place: Universidad Jaime I **Type of entity:** University
City of entity: Castellón de la Plana, Valencian Community, Spain
Type of participation: Research contract
Code according to the funding entity: P11B2013-20
Start-End date: 01/01/2014 - 31/12/2105 **Duration:** 2 years
- 2** **Name of the project:** PROPHET-2: Abstraction and generalization of parallelization strategies for scientific and engineering applications to be deployed in heterogenous and reconfigurable interconnected platforms
Geographical area: Regional
Degree of contribution: Researcher
Entity where project took place: Universidad de Valladolid **Type of entity:** University
City of entity: Valladolid, Castile and León, Spain
Funding entity or bodies: Junta de Castilla y León **Type of entity:** Regional government
Type of participation: Postdoctoral contract
Name of the programme: Apoyo a proyectos de investigación cofinanciadas por el Fondo Europeo de Desarrollo Regional (FEDER). Junta de Castilla y León
Code according to the funding entity: VA226P20
Start-End date: 01/11/2020 - 31/10/2023
- 3** **Name of the project:** Computación de altas prestaciones consciente del consumo para redes neuronales profundas
Degree of contribution: Researcher
Entity where project took place: Universidad Jaime I **Type of entity:** University
City of entity: Castellón de la Plana, Valencian Community, Spain
Name principal investigator (PI, Co-PI...): Manuel Francisco Dolz Zaragoza
Nº of researchers: 5
Funding entity or bodies: Universidad Jaime I **Type of entity:** University
Type of participation: Team member
Name of the programme: Convocatoria de ayudas del plan de promoción de la investigación de la Universitat Jaume I de Castelló para el año 2019
Code according to the funding entity: 19I536,UJI-A2019-11
Start-End date: 01/01/2020 - 31/12/2022 **Duration:** 3 years
Total amount: 28.000 €

- 4** **Name of the project:** Técnicas Algorítmicas para Computación de Alto Rendimiento Consciente del Consumo Energético y Resistente a Errores
Geographical area: National
Degree of contribution: Researcher
Entity where project took place: Universidad Jaime I **Type of entity:** University
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City of entity: Castelló de la Plana, Valencian Community, Spain
Name principal investigator (PI, Co-PI....): Enrique S. Quintana Ortí; José I. Aliaga Estellés
Type of participation: Research contract
Code according to the funding entity: TIN2017-82972-R
Start-End date: 01/01/2018 - 31/12/2020 **Duration:** 3 years
- 5** **Name of the project:** Desarrollo de una librería paralela para el manejo de matrices jerárquicas sobre procesadores multinúcleo y aceleradores
Degree of contribution: Researcher
Entity where project took place: Universidad Jaime I **Type of entity:** University
|
City of entity: Castellón de la Plana, Valencian Community, Spain
Name principal investigator (PI, Co-PI....): José Ignacio Aliaga Estellés
Nº of researchers: 9
Funding entity or bodies:
Universidad Jaime I **Type of entity:** University
Type of participation: Team member
Name of the programme: Convocatoria de ayudas del plan de promoción de la investigación de la Universitat Jaume I de Castelló para el año 2017
Code according to the funding entity: 17I403, UJI-B2017-46
Start-End date: 01/01/2018 - 31/12/2019 **Duration:** 2 years
Total amount: 18.126 €
- 6** **Name of the project:** Programming Model INTERoperability ToWards Exascale (INTERTWinE)
Name principal investigator (PI, Co-PI....): George Beckett
Funding entity or bodies:
Comisión Europea **Type of entity:** H2020
Type of participation: Researcher from a project partner (UJI) collaborating in the project
Name of the programme: H2020-EU.1.2.2. - FET Proactive (H2020-FETHPC-2014)
Code according to the funding entity: 671602
Start-End date: 01/10/2015 - 30/09/2018 **Duration:** 3 years
Total amount: 3.861.400,99 €
Relevant results: Check them at <http://www.intertwine-project.eu/project-publications>
Applicant's contribution: Contributions to the project technologies evaluation, particularly designing the HierMatFact application to test the Resource Manager (see <http://www.intertwine-project.eu/developer-hub/resource-manager>). Also a paper in PDSEC17 (IPDPSW) entitled "Exploiting Nested Task-Parallelism in the H-LU Factorization", and different talks in conferences without proceedings.
- 7** **Name of the project:** COHEBACO: COMPUTACIÓN HETEROGÉNEA DE BAJO CONSUMO" in the research group "High Performance Computing and Architectures"
Geographical area: National
Degree of contribution: Researcher
Entity where project took place: Universidad Jaime I **Type of entity:** University
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City of entity: Castelló de la Plana, Valencian Community, Spain

Type of participation: Research contract

Code according to the funding entity: TIN2014-53495-R

Start-End date: 01/01/2015 - 01/09/2018

Duration: 3 years - 8 months

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

- 1** Rocío Carratalá-Sáez; Yuri Torres; José Sierra-Pallarés; Sergio López-Huguet; Diego R. Llanos. UVaFTLE: Lagrangian finite time Lyapunov exponent extraction for fluid dynamic applications. Journal of Supercomputing. Springer, 19/01/2023. Available on-line at: <<https://link.springer.com/article/10.1007/s11227-022-05017-x>>.
DOI: 10.1007/s11227-022-05017-x
Type of production: Scientific paper
Position of signature: 1
Total no. authors: 5
Relevant publication: Yes
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
- 2** Rocío Carratalá-Sáez; Sven Christophersen; José I. Aliaga; Vicenç Beltran; Steffen Börm; Enrique S. Quintana-Ortí. Exploiting Nested Task-Parallelism in the H-LU Factorization. Journal of Computational Science. 33, pp. 20 - 33. Elsevier, 04/2019. ISSN 1877-7503
DOI: 10.1016/j.jocs.2019.02.004
Type of production: Scientific paper
Position of signature: 1
Total no. authors: 6
Impact source: ISI
Impact index in year of publication: 2.644
Position of publication: 28
Source of citations: WOS
Source of citations: SCOPUS
Source of citations: Google Scholar
Relevant publication: Yes
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: Yes
Category: Science Edition - COMPUTER SCIENCE, THEORY & METHODS
Journal in the top 25%: No
No. of journals in the cat.: 108
Citations: 2
Citations: 2
Citations: 7
- 3** Andrés E. Tomás; Rafael Rodríguez-Sánchez; Sandra Catalán; Rocío Carratalá-Sáez; Enrique S. Quintana-Ortí. Dynamic look-ahead in the reduction to band form for the singular value decomposition. Parallel Computing. Elsevier, 29/11/2018. ISSN 0167-8191
DOI: 10.1016/j.parco.2018.11.001
Type of production: Scientific paper
Position of signature: 4
Total no. authors: 5
Impact source: ISI
Format: Journal
Degree of contribution: Author or co-author of article in journal with external admissions assessment committee
Corresponding author: No

Impact index in year of publication: 1.281

Position of publication: 55

Source of citations: WOS

Source of citations: SCOPUS

Source of citations: Google Scholar

Relevant publication: Yes

Category: Science Edition - COMPUTER SCIENCE, THEORY & METHODS

Journal in the top 25%: No

No. of journals in the cat.: 105

Citations: 1

Citations: 2

Citations: 2

- 4** José I. Aliaga; Rocío Carratalá-Sáez; Enrique S. Quintana-Ortí. Parallel Solution of Hierarchical Symmetric Positive Definite Linear Systems. Applied Mathematics and Nonlinear Sciences. 2 - 1, pp. 201 - 212. UP4Sciences, 22/06/2017. Available on-line at: <<https://content.sciendo.com/view/journals/amns/2/1/article-p201.xml>>. ISSN 2444-8656

DOI: <https://doi.org/10.21042/AMNS.2017.1.00017>

Type of production: Scientific paper

Position of signature: 2

Total no. authors: 3

Source of citations: Google Scholar

Relevant publication: Yes

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: Yes

Citations: 7

- 5** Sandra Catallán Pallarés; Pedro Valero Lara; Leonel Antonio Toledo Díaz; Rocío Carratalá Sáez. Developing Linear Algebra Codes on Modern Processors: Emerging Research and Opportunities. IGI Global, Available on-line at: <<https://www.igi-global.com/book/developing-linear-algebra-codes-modern/260151>>. ISBN 9781799870821

DOI: 10.4018/978-1-7998-7082-1

Type of production: Scientific book or monograph

Position of signature: 4

Total no. authors: 4

Relevant publication: Yes

Format: Book

Degree of contribution: Author or co-author of entire book

- 6** Sandra Catalán; Rocío Carratalá-Sáez; Sergio Iserte. Leveraging Teaching on Demand: Approaching HPC to Undergrads. Journal of Parallel and Distributed Computing. Elsevier, ISSN 0743-7315

DOI: <https://doi.org/10.1016/j.jpdc.2021.05.015>

Type of production: Scientific paper

Position of signature: 2

Total no. authors: 3

Relevant results: The paper is accepted and will be published soon

Format: Journal

Degree of contribution: Author or co-author of article in journal with external admissions assessment committee

Corresponding author: No

Works submitted to national or international conferences

- 1** **Title of the work:** Peachy Parallel Assignments (EduHPC 2022)
Name of the conference: 2022 IEEE/ACM International Workshop on Education for High Performance Computing (EduHPC)
Type of event: Workshop
Type of participation: Participatory - oral communication
Corresponding author: No
City of event: Dallas, United States of America
Geographical area: Non EU International



Date of event: 13/11/2022

End date: 18/11/2022

Organising entity: IEEE/ACM

Publication in conference proceedings: Yes

With external admission assessment committee:
Yes

Type of contribution: Scientific paper

Rocío Carratalá-Sáez; Arturo Gonzalez-Escribano; Alexandros-Stavros Iliopoulos; Charles E. Leiserson; Charlotte Park; Isabel Rosa; Tao B. Scharidl; Yuri Torres; David P. Bunde. "Peachy Parallel Assignments (EduHPC 2022)". En: 2022 IEEE/ACM International Workshop on Education for High Performance Computing (EduHPC). pp. 50 - 56. IEEE Xplore, 31/01/2023. Available on-line at: <<https://ieeexplore.ieee.org/document/10027544/authors>>.

DOI: 10.1109/EduHPC56719.2022.00012

2 Title of the work: Sobre el cálculo de trayectorias en la extracción de Estructuras Coherentes Lagrangianas

Name of the conference: Jornadas de la Sociedad de Arquitectura y Tecnología de Computadores

Type of event: Conference

Geographical area: National

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: Alicante, Valencian Community, Spain

Date of event: 21/09/2022

End date: 23/09/2022

Organising entity: Sociedad de Arquitectura y Tecnología de Computadores (SARTECO)

With external admission assessment committee: Yes

Type of contribution: Scientific paper

Rocío Carratalá-Sáez; José Sierra-Pallares; Diego R. Llanos; Arturo Gonzalez-Escribano. "Sobre el cálculo de trayectorias en la extracción de Estructuras Coherentes Lagrangianas". En: Avances en arquitectura y tecnología de computadores. Actas de las Jornadas SARTECO 2019.. ISBN 9788413021850

3 Title of the work: Towards a faster computation of the Langrangian Flowmap for Fluid Dynamic Applications

Name of the conference: 92th Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM 2022)

Type of event: Conference

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: Aachen, Germany

Date of event: 15/08/2022

End date: 19/08/2022

Organising entity: International Association of Applied Mathematics and Mechanics

Publication in conference proceedings: No

Rocío Carratalá-Sáez; José Sierra-Pallares; Diego R. Llanos; Arturo Gonzalez-Escribano.

4 Title of the work: Tiled Algorithms for Efficient Task-Parallel H-Matrix Solvers

Name of the conference: IPDPS 2020 - IEEE International Parallel & Distributed Processing Symposium

Type of event: Workshop

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: New Orleans, United States of America

Date of event: 18/05/2020

End date: 22/05/2020

Organising entity: IEEE

Publication in conference proceedings: Yes



With external admission assessment committee:
Yes

Type of contribution: Scientific paper

Rocío Carratalá-Sáez; Mathieu Faverge; Grégoire Pichon; Guillaume Sylvand; Enrique S. Quintana-Ortí. "Tiled Algorithms for Efficient Task-Parallel H-Matrix Solvers". En: 2020 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW). pp. 757 - 766. IEEE, Available on-line at: <<https://ieeexplore.ieee.org/document/9150424>>. ISBN 978-1-7281-7457-0

DOI: 10.1109/IPDPSW50202.2020.00131

5 Title of the work: Exploiting Generic Tiled Algorithms Toward Scalable H-Matrices Factorizations on Top of Runtime Systems

Name of the conference: SIAM Conference on Parallel Processing for Scientific Computing (SIAM PP20)

Type of event: Conference

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: Seattle, United States of America

Date of event: 12/02/2020

End date: 15/02/2020

Organising entity: Society for Industrial and Applied Mathematics (SIAM)

Publication in conference proceedings: No

Rocío Carratalá-Sáez; Mathieu Faverge; Grégoire Pichon; Enrique S. Quintana-Ortí; Guillaume Sylvand.

6 Title of the work: Teaching on Demand: an HPC Experience

Name of the conference: EduHPC-19: Workshop on Education for High Performance Computing

Type of event: Workshop

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: Colorado, United States of America

Date of event: 17/11/2019

End date: 17/11/2019

Organising entity: NSF/IEEE-TCPP Curriculum Initiative

Publication in conference proceedings: Yes

With external admission assessment committee:
Yes

Type of contribution: Scientific paper

Rocío Carratalá-Sáez; Sergio Iserte; Sandra Catalán. "2019 IEEE/ACM Workshop on Education for High-Performance Computing (EduHPC)". En: 2019 IEEE/ACM Workshop on Education for High-Performance Computing (EduHPC). pp. 32 - 41. IEEE, 17/11/2019. Available on-line at: <<https://ieeexplore.ieee.org/document/8943089>>. ISBN 978-1-7281-5976-8

DOI: 10.1109/EduHPC49559.2019.00010

Source of citations: SCOPUS

Citations: 1

Source of citations: Google Scholar

Citations: 1

7 Title of the work: Exploiting Nested Task-Parallelism in the LU Factorization of Hierarchical Matrices

Name of the conference: PACO 2019: 3rd Workshop on Power-Aware Computing

Type of event: Conference

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: Magdeburg, Germany

Date of event: 05/11/2019

End date: 06/11/2019

Organising entity: Max Planck Institute for Dynamics of Complex Technical Systems



Publication in conference proceedings: No
Rocío Carratalá-Sáez; Enrique S. Quintana-Ortí.

- 8** **Title of the work:** Sobre el paralelismo anidado de tareas en la factorización LU de Matrices Jerárquicas
Name of the conference: Jornadas de la Sociedad de Arquitectura y Tecnología de Computadores
Type of event: Conference **Geographical area:** National
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: Cáceres, Extremadura, Spain
Date of event: 18/09/2019
End date: 20/09/2019
Organising entity: Sociedad de Arquitectura y Tecnología de Computadores (SARTECO)
With external admission assessment committee: Yes
Type of contribution: Scientific paper
Rocío Carratalá Sáez; Enrique S. Quintana Ortí. "Sobre el paralelismo anidado de tareas en la factorización LU de Matrices Jerárquicas". En: Avances en arquitectura y tecnología de computadores. Actas de las Jornadas SARTECO 2019.. ISBN 9788409121274
- 9** **Title of the work:** Improving nested task-parallelism in the LU Factorization of H-Matrices
Name of the conference: International Congress on Industrial and Applied Mathematics (ICIAM 2019)
Type of event: Conference
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: Valencia, Valencian Community, Spain
Date of event: 15/07/2019
End date: 19/07/2019
Organising entity: SOCIEDAD ESPAÑOLA DE MATEMATICA APLICADA
Publication in conference proceedings: No
Rocío Carratalá-Sáez; Enrique S. Quintana-Ortí.
- 10** **Title of the work:** Improving nested task-parallelism in the LU Factorization of H-Matrices
Name of the conference: 14th Scheduling for Large Scale Systems Workshop
Type of event: Conference
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: Bordeaux, Aquitaine, France
Date of event: 26/06/2019
End date: 28/06/2019
Organising entity: Inria Bordeaux
Publication in conference proceedings: No
Rocío Carratalá-Sáez; Enrique S. Quintana-Ortí.
- 11** **Title of the work:** Exploiting Nested Task-based Parallelism in the Factorization of Hierarchical Matrices
Name of the conference: SIAM Conference on Computational Science and Engineering (CSE19)
Type of event: Conference **Geographical area:** Non EU International
Type of participation: Participatory - oral communication
Corresponding author: Yes
City of event: Spokane, United States of America
Date of event: 25/02/2019
End date: 01/03/2019
Organising entity: Society for Industrial and Applied Mathematics

**Publication in conference proceedings:** No

Rocío Carratalá-Sáez; Enrique S. Quintana-Ortí. "Exploiting Nested Task-based Parallelism in the Factorization of Hierarchical Matrices". En: MS197 Task-based Programming for Scientific Computing: Linear Algebra Applications.

- 12 Title of the work:** Explotando el Paralelismo de Tareas en la Factorización de Cholesky de Matrices Jerárquicas

Name of the conference: Jornadas de la Sociedad de Arquitectura y Tecnología de Computadores

Type of event: Conference

Geographical area: National

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: Teruel, Aragon, Spain

Date of event: 12/09/2018

End date: 14/09/2018

Organising entity: Sociedad de Arquitectura y Tecnología de Computadores (SARTECO)

With external admission assessment committee: Yes

Type of contribution: Scientific paper

José I. Aliaga; Rocío Carratalá Sáez; Enrique S. Quintana Ortí. "Explotando el Paralelismo de Tareas en la Factorización de Cholesky de Matrices Jerárquicas". En: Avances en arquitectura y tecnología de computadores. Actas de las Jornadas SARTECO 2018.. ISBN 978-84-09-04334-7

- 13 Title of the work:** Exploiting Nested Task-Based Parallelism in the Factorization of Hierarchical Matrices

Name of the conference: 10th International Workshop on Parallel Matrix Algorithms and Applications (PMAA 18)

Type of event: Workshop

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: Zürich, Switzerland

Date of event: 27/06/2018

End date: 29/06/2018

Publication in conference proceedings: No

Rocío Carratalá-Sáez; Sven Christophersen; José I. Aliaga; Vicenç Beltran; Steffen Börm; Enrique S. Quintana-Ortí. "Exploiting Nested Task-Based Parallelism in the Factorization of Hierarchical Matrices". En: MS 2.2.C TASK-BASED PROGRAMMING FOR SCIENTIFIC COMPUTING I.

- 14 Title of the work:** Exploiting Nested Task-Parallelism in the H-LU Factorization

Name of the conference: SIAM Conference on Parallel Processing for Scientific Computing (SIAM PP)

Type of event: Conference

Geographical area: Non EU International

Type of participation: Participatory - poster

Corresponding author: Yes

City of event: Tokyo, Japan

Date of event: 07/03/2018

End date: 10/03/2018

Organising entity: Society for Industrial and Applied Mathematics

Rocío Carratalá Sáez; Sven Christophersen; José I. Aliaga; Vicenç Beltran; Steffen Börm; Enrique S Quintana Ortí. "Exploiting Nested Task-Parallelism in the H-LU Factorization".

- 15 Title of the work:** Un enfoque unificado para la resolución de sistemas de ecuaciones lineales explotando paralelismo de tareas

Name of the conference: Jornadas de la Sociedad de Arquitectura y Tecnología de Computadores (SARTECO 2017)

Type of event: Conference

Geographical area: National



Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: Málaga, Andalusia, Spain

Date of event: 19/09/2017

End date: 22/09/2017

Organising entity: Sociedad de Arquitectura y Tecnología de Computadores (SARTECO)

Publication in conference proceedings: Yes

With external admission assessment committee:
Yes

Type of contribution: Scientific paper

José I. Aliaga; Maria Barreda; Rocío Carratalá-Sáez; Sandra Catalán; Enrique S. Quintana-Ortí.

"<https://www.sciencedirect.com/science/article/pii/S0167819118301534?via%3Dihub>". En: Avances en arquitectura y tecnología de computadores. Actas de las Jornadas SARTECO 2017.. pp. 59 - 66. (Saint Barthélemy): ISBN 978-84-697-4835-0

- 16 Title of the work:** A Unified Task-Parallel Approach for Dense, Hierarchical and Sparse Linear Systems
Name of the conference: XXV Congreso de Ecuaciones Diferenciales y Aplicaciones & XV Congreso de Matemática Aplicada (CEDYA+CMA)

Type of event: Conference

Geographical area: National

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: Cartagena, Region of Murcia, Spain

Date of event: 26/06/2017

End date: 30/06/2017

Organising entity: Sociedad Española de Matemática Aplicada

Publication in conference proceedings: Yes

With external admission assessment committee:
Yes

Type of contribution: Scientific paper

José I. Aliaga; Maria Barreda; Rocío Carratalá-Sáez; Sandra Catalán; Enrique S. Quintana-Ortí. "A Unified Task-Parallel Approach for Dense, Hierarchical and Sparse Linear Systems". En: Libro de comunicaciones definitivas presentadas en CEDYA+CMA 2017. pp. 152 - 159. UP4, Institute of Sciences, 31/07/2017. Available on-line at: <<http://cedya2017.org/archivos/libroComunicacionesDefinitivasCEDYA+CMA2017.pdf>>. ISBN 978-84-944402-1-2

- 17 Title of the work:** Task-Parallel LU Factorization of Hierarchical Matrices using OmpSs
Name of the conference: IPDPS 2017 - IEEE International Parallel & Distributed Processing Symposium
Type of event: Workshop

Geographical area: Non EU International

Type of participation: Participatory - oral communication

Corresponding author: Yes

City of event: Lake Buena Vista, Orlando, United States of America

Date of event: 29/05/2017

End date: 02/06/2017

Organising entity: IEEE

Publication in conference proceedings: Yes

With external admission assessment committee:
Yes

Type of contribution: Scientific paper

José I. Aliaga; Rocío Carratalá-Sáez; Ronald Kriemann; Enrique S. Quintana-Ortí. "Task-Parallel LU Factorization of Hierarchical Matrices using OmpSs". En: 2017 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW). pp. 1148 - 1157. IEEE, 03/07/2017. Available on-line at: <<https://ieeexplore.ieee.org/document/7965168>>. ISBN 978-1-5386-3408-0

DOI: 10.1109/IPDPSW.2017.124

Source of citations: WOS

Citations: 1

Source of citations: SCOPUS

Citations: 2



Source of citations: Google Scholar

Citations: 8

R&D management and participation in scientific committees

Scientific, technical and/or assessment committees

- 1** **Committee title:** SC21 - SCALE Co-Chair of the Students@SC Program
Geographical area: Non EU International
Start-End date: 11/2020 - 11/2021
- 2** **Committee title:** Programming committee member of the EduHPC-20: Workshop on Education for High Performance Computing (EduHPC20)
Geographical area: Non EU International
Start-End date: 09/2020 - 11/2020
- 3** **Committee title:** SC20 - Scavenger Hunt Chair of the Students@SC Program
Geographical area: Non EU International
Start-End date: 11/2019 - 11/2020
- 4** **Committee title:** Programming committee member of the EduPar-20: 10th NSF/TCPP Workshop on Parallel and Distributed Computing Education (EduPar-20)
Geographical area: Non EU International
Start-End date: 11/2019 - 05/2020

Organization of R&D activities

- 1** **Title of the activity:** II Colonias Científicas
Type of activity: Science divulgation for high school students
Geographical area: National students
City of event: Castellón de la Plana, Valencian Community, Spain
Convening entity: Universidad Jaime I
Type of entity: University
City convening entity: Castellón de la Plana, Valencian Community, Spain
Type of participation: Speaker
N° assistants: 34
Start-End date: 30/06/2014 - 04/07/2014
Duration: 5 days
- 2** **Title of the activity:** I Colonias Científicas
Type of activity: Science divulgation for high school students
Geographical area: Regional students
City of event: Castellón de la Plana, Valencian Community, Spain
Convening entity: Universidad Jaime I
Type of entity: University
City convening entity: Castellón de la Plana, Valencian Community, Spain
Type of participation: Speaker
N° assistants: 34
Start-End date: 01/07/2013 - 05/07/2013
Duration: 5 days

Evaluation and revision of R&D projects and articles

- 1 Name of the activity:** Reviewer
Performed tasks: Reviewer of the Euro-Par2021: 27th International European Conference on Parallel and Distributed Computing
Entity where activity was carried out: Universidade de Lisboa, INESC-ID
City of entity: Lisbon, Portugal
Access system: Designated by the corresponding party without competition **Geographical area:** European Union
Start-End date: 25/02/2021 - 26/03/2021
- 2 Name of the activity:** Reviewer
Performed tasks: Reviewer of the EduHPC 2020: Workshop on Education for High Performance Computing (EduHPC)
Entity where activity was carried out: TCHPC, SC20
City of entity: Atlanta, United States of America
Access system: Designated by the corresponding party without competition **Geographical area:** Non EU International
Start-End date: 14/09/2020 - 29/09/2020
- 3 Name of the activity:** Reviewer
Performed tasks: Reviewer of the EduPar-20: 10th NSF/TCPP Workshop on Parallel and Distributed Computing Education (EduPar-20)
Entity where activity was carried out: NSF/TCPP, IPDPS2020
City of entity: New Orleans, United States of America
Access system: Designated by the corresponding party without competition **Geographical area:** Non EU International
Start-End date: 11/02/2020 - 26/02/2020
- 4 Name of the activity:** Reviewer
Performed tasks: Reviewer of the 31st International Symposium on Computer Architecture and High Performance Computing (SBAC-PAD 2019)
Entity where activity was carried out: Sociedade Brasileira de Computação
City of entity: Campo Grande, Brazil
Access system: Designated by the corresponding party without competition **Geographical area:** Non EU International
Start-End date: 01/07/2019 - 17/07/2019
- 5 Name of the activity:** Reviewer
Performed tasks: Reviewer of the International Journal of High Performance Computing Applications
Entity where activity was carried out: SAGE
City of entity: United States of America
Access system: Designated by the corresponding party without competition **Geographical area:** Non EU International
Start-End date: 06/03/2019 - 07/05/2019
- 6 Name of the activity:** Reviewer
Performed tasks: Reviewer of the Euro MPI 2018 Conference
Entity where activity was carried out: Barcelona **Type of entity:** Public Research Body
Supercomputing Center



City of entity: Barcelona, Catalonia, Spain

Access system: Designated by the corresponding party without competition

Start-End date: 08/08/2018 - 31/08/2018

Geographical area: Non EU International

7 Name of the activity: Reviewer

Performed tasks: Reviewer of the IEEE Cluster 2018 Conference

City of entity: Belfast, Northern Ireland, United Kingdom

Access system: Designated by the corresponding party without competition

Start-End date: 24/05/2018 - 02/07/2018

Geographical area: Non EU International

Other achievements

Stays in public or private R&D centres

1 Entity: INRIA Bordeaux **Type of entity:** Public Research Body

Faculty, institute or centre: HiePACS research team

City of entity: Burdeos, Aquitaine, France

Start-End date: 01/06/2019 - 31/08/2019

Duration: 3 months

Funding entity: HiPEAC (collaboration grant)

Goals of the stay: Doctorate

2 Entity: INRIA Bordeaux **Type of entity:** Public Research Body

Faculty, institute or centre: HiePACS research team

City of entity: Burdeos, Aquitaine, France

Start-End date: 01/07/2018 - 30/09/2018

Duration: 3 months

Goals of the stay: Doctorate

3 Entity: Christian-Albrechts-Universität zu Kiel **Type of entity:** University

City of entity: Kiel, Germany

Start-End date: 08/01/2018 - 28/01/2018

Duration: 21 days

Funding entity: European cooperation in Science & Technology - COST

Name of programme: SHORT TERM SCIENTIFIC MISSION (STSM)

Goals of the stay: Doctorate

4 Entity: Centro Nacional de Supercomputación **Type of entity:** R&D Centre

Faculty, institute or centre: Computer Sciences Department

City of entity: Barcelona, Catalonia, Spain

Start-End date: 01/11/2017 - 30/11/2017

Duration: 1 month

Funding entity: BSC - Severo Ochoa Mobility Grant

Goals of the stay: Doctorate



Obtained grants and scholarships

- 1** **Name of the grant:** MECD-FPU (Formación del Profesorado Universitario)
Aims: Pre-doctoral
Awarding entity: Ministerio de Educación, Cultura y Deporte **Type of entity:** Ministry
Conferral date: 05/08/2016 **Duration:** 4 years - 3 months
End date: 31/12/2020
Entity where activity was carried out: Universidad Jaime I
Faculty, institute or centre: Departamento de Ingeniería y Ciencia de los Computadores
- 2** **Name of the grant:** Lead Student Volunteer - SC19 Conference
City awarding entity: Denver, United States of America
Aims: Collaborate with the SC18 Students@SC Committee and participate in the conference activities
Conferral date: 06/06/2019
End date: 22/11/2019
- 3** **Name of the grant:** HiPEAC Collaboration grant
Aims: Pre-doctoral
Awarding entity: HiPEAC **Type of entity:** Foundation
Amount of the grant: 5.000 €
Conferral date: 02/07/2019 **Duration:** 3 months
End date: 31/08/2019
Entity where activity was carried out: INRIA Bordeaux
- 4** **Name of the grant:** Student Volunteer - SC18 Conference
City awarding entity: Dallas, United States of America
Aims: Collaborate with the SC18 Students@SC Committee and participate in the conference activities
Conferral date: 09/08/2018
End date: 16/11/2018
- 5** **Name of the grant:** Short Term Scientific Mission (STSM)
Aims: Pre-doctoral
Awarding entity: European cooperation in Science & Technology - COST
Amount of the grant: 1.300 €
Conferral date: 01/10/2017 **Duration:** 21 days
End date: 28/01/2018
Entity where activity was carried out: Christian-Albrechts-Universität zu Kiel
- 6** **Name of the grant:** Severo Ochoa Mobility Grant
City awarding entity: Spain
Aims: Pre-doctoral
Awarding entity: Barcelona Supercomputing Center **Type of entity:** Public Research Body
Amount of the grant: 850 €
Conferral date: 21/06/2017 **Duration:** 1 month
End date: 30/11/2017
Entity where activity was carried out: Barcelona Supercomputing Center



- 7** **Name of the grant:** Programa Estudia e Investiga (Research & Study program)
Aims: Initiate B.Sc. students in university research.
Awarding entity: Universidad Jaime I **Type of entity:** University
Conferral date: 01/09/2011 **Duration:** 3 years - 11 months
End date: 31/07/2015
Entity where activity was carried out: Universidad Jaime I
- 8** **Name of the grant:** Beca de Colaboración (MECD), con título de proyecto "Métricas y algoritmos para la evaluación de modelos de guías clínicas en el lenguaje PROforma"
Awarding entity: MINISTERIO DE EDUCACION Y CIENCIA
Amount of the grant: 2.000 €
Conferral date: 08/10/2014 **Duration:** 8 months
End date: 30/06/2015
Entity where activity was carried out: Universidad Jaime I
Faculty, institute or centre: Departamento de Ingeniería y Ciencia de los Computadores
- 9** **Name of the grant:** Beca de Investigación (Research Grant) with title "Extrinsic isoperimetry, volume growth and topology of subvarieties in a variety with one pole. Applications to quantum information theory"
Awarding entity: Universidad Jaime I **Type of entity:** University
Amount of the grant: 350 €
Conferral date: 16/10/2013 **Duration:** 5 months - 15 days
End date: 31/03/2014
Entity where activity was carried out: Universidad Jaime I

Prizes, mentions and distinctions

- 1** **Description:** Primer premio del concurso "Tu tesis en 3 minutos"
Awarding entity: Sociedad de Arquitectura y Tecnología de Computadores (SARTECO) **Type of entity:** Associations and Groups
City awarding entity: Spain
Conferral date: 23/09/2021
- 2** **Description:** Extraordinary Prize of Academic Excellence (B.Sc. Degree)
Awarding entity: Generalitat Valenciana **Type of entity:** Conselleria d'Educació, Investigació, Cultura i Esport
City awarding entity: Valencia, Valencian Community, Spain
Conferral date: 16/12/2016
- 3** **Description:** End-of-degree Extraordinary Prize
Awarding entity: Universidad Jaime I **Type of entity:** University
City awarding entity: Castellón de la Plana, Valencian Community, Spain
Conferral date: 2016
- 4** **Description:** Award for academic excellence of 2nd year Bachelor Studies.
Awarding entity: Universidad Jaime I **Type of entity:** University
City awarding entity: Castellón de la Plana, Valencian Community, Spain
Conferral date: 03/04/2014



- 5** **Description:** Award for academic excellence of 1st year Bachelor Studies.
Awarding entity: Universidad Jaime I **Type of entity:** University
City awarding entity: Castellón de la Plana, Valencian Community, Spain
Conferral date: 28/03/2013