

Personal information and current position

First and Family name	José Manuel Domínguez Alonso		
Researcher numbers	Scopus ID	55696865500	
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Current position	Postdoctoral Researcher in EPhysLab (Environmental Physics Laboratory)		
Name of institution	Universidade de Vigo		
Department	Departamento de Física Aplicada. Facultad de Ciencias		
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UNESCO codes	220400, 250121, 251007, 330506, 330511		
Key words	Fluid Dynamics, High Performance Computing, numerical modelling, physical oceanography		

General quality indicators of scientific research

PhD theses supervised: 1 (2015 at Universidade de Vigo) and 1 in progress.

Publications: 36 papers (31 in journals of Science Citation Index) and 9 book chapters.

Publications in Q1: 16 (Q1 in the year of publication).

Index h: 17 (SCOPUS). Total citations: 1160. Average citations for the last 5 years: 187.8 citations/year: 75(2014), 141(2015), 213(2016), 219(2017), 291(2018).

Biography

Dr José M. Domínguez Alonso is a Postdoctoral Researcher at The University of Vigo, Ourense in Spain. His research activity is mainly focused on computational fluid dynamics using HPC (High Performance Computing) and its application to coastal engineering. He is focusing on accelerating numerical models such as SPH (Smoothed Particle Hydrodynamics) using the High Performance Computing. He has more than nine years of experience working on HPC and SPH collaborating with people from University of Manchester and Flanders Hydraulics Research in Belgium. As an expert developer, he has been working during the last years using new novel technologies such as GPUs. He is the main developer of the DualSPHysics code (www.dual.sphysics.org, [DualSPHysics on GitHub](#), [YouTube channel](#)).

Summary of CV

1. Teaching experience:

- 1 PhD thesis supervised at Universidade de Vigo (2015) and 1 in progress.
- 128 hours of teaching in Environmental Science Degree (Environmental modelling and simulation, Oceanography, Physics, Analysis and quality of the air, Techniques of analysis and meteorological forecasting), Food Science and Technology Degree (Physics), Agriculture Engineering Degree (Physics).

2. Research lines:

- Development of numerical models for fluid simulation using high-performance computing.
- **Main developer of the open-source software DualSPHysics** (www.dual.sphysics.org). One of the most popular and efficient Smoothed Particle Hydrodynamics solver in the world.
- Wave propagation and interaction between waves and coastal structures.
- Numerical design of dam spillways, development of risk maps for floods and runoff.
- Numerical design of offshore devices, coastal protection and harbour facilities.

3. Project involvement: 17 R&D projects funded through competitive calls:

- 7 funded by Xunta de Galicia and 2 funded by Universidade de Vigo.
- 3 funded by Ministerio de Educación y Ciencia, Ministerio de Ciencia y Tecnología, Ministerio de Economía y Competitividad.
- 3 european projects; a) IMDROFLOOD funded by “WaterWorks2014”, b) Prevención de Riesgos de Inundaciones y Sequías en la Cuenca Internacional del Miño-Limia funded by UE FEDER, c) MarRISK funded by UE FEDER.
- Principal investigator in the project INOU13-04 in 2013.
- Investigator in a project with the private company SENER INGENIERÍA Y SISTEMAS S.A. during 2013-2014.
- Co-founder of the spin-off of the Universidade de Vigo “Environmental Physics Technologies S.L.” (CIF: B-32454266), 2015.

4. Scientific publications:

- H index: 17 (SCOPUS). Total citations: 1160. 36 papers (31 in journals of Science Citation Index, 16 in Q1 journals in the year of publication) and 9 book chapters.
- Journal editor of “Avances en Ciencias de la Tierra” since 2012.
- Reviewer in 8 scientific journals of Science Citation Index.

5. Works submitted to conferences:

- 6 keynote talks in international conferences.
- 5 works submitted to national conferences (4 oral communications given by me).
- 83 works submitted to international conferences (10 oral communications given by me).
- 6 courses given at international events (2012-2017) about the use of software DualSPHysics.
- Member of 4 Organizing Committees and 3 Scientific Committees of international conferences.

6. Grants and prizes:

- Postdoctoral grant by Xunta de Galicia at Universidade de Vigo (2018-2020).
- Postdoctoral grant by Xunta de Galicia at Universidade de Vigo (2015-2018).
- Doctoral grant by Xunta de Galicia at Universidade de Vigo (2011-2015).
- Best Presentation Award by ISOBAY14 in 2014.
- Best Presentation Award by CIDAT2015 in 2015.
- ESCLIMA Award for Thesis project in 2010.

7. Stays in foreign countries:

- Postdoctoral stay of 15 days at Imperial College London (United Kingdom).
- Postdoctoral stay of 1 year at Flanders Hydraulics Research (Belgium).
- Postdoctoral stay of 1 year at University of Manchester (United Kingdom).
- Doctoral stay of 3 months at University of Manchester (United Kingdom).