

# Curriculum Vitae

---

## João Miguel Leitão Janeiro

Rua Rasquinho, 9

8000-416 Faro, Portugal

+351 968085608

Email: [janeiro.jm@gmail.com](mailto:janeiro.jm@gmail.com)

Linkedin: <http://pt.linkedin.com/pub/joão-janeiro/17/734/1a3/>

ORCID: <https://orcid.org/0000-0002-6241-8520>

Skype: joazio

I'm an objective driven, diligent person with a strong entrepreneur spirit, organizational skills and taste for life. My professional goal is to continue developing technological solutions, based on numerical modelling, to improve our understanding of ocean and coastal processes while capacitate better management solutions for human activities in the sea and coastal regions.

## PERSONAL INFORMATION

---

Born September 22nd, 1980 in Portalegre (Portugal)

Citizenship: Portuguese

Sex: Male

Driving Licence: B

## EXPERIENCE

---

01.2020 – PRESENT

### **SEAPULSE** CEO e Co-Founder

SeaPulse is a scientific/technological SME which has the mission of provide optimal technological solutions for environmental and marine challenges. As SeaPulse CEO my role involves representing the organization in events and meetings, establish responsibilities for each department thus assist in creating guidelines for following through on said responsibilities. Finally to create and implement policies and objectives to ensure continuing operation with increased productivity and maximized return on investments.

07.2019 – PRESENT

### **UNIVERSITY OF ALGARVE** Pos-Doc Researcher

To develop new strategies and methods to improve computational performance and forecast accuracy in coastal operational oceanography systems, while providing more accurate and fit for purpose essential ocean information to regional stakeholders in an operational way. Contribute to scientific discussion related with the South Iberia oceanography in a cross scale approach.

06. 2015 – 06.2019

### **H2020 ATLANTOS PROJECT** Researcher

*AtlantOS WP8: Societal Benefits from observing/information systems.* Using available and improved environmental data gather in the scope of AtlantOS project, produce decision support (DSS) tools for oil spill hazard for the Atlantic Region as well as Data Adequacy Reports. <https://www.atlantos-h2020.eu>

03.2014 – 04.2014

**INSTITUTO SUPERIOR DE ENGENHARIA (UALG)**  
Researcher

*Technical Study on support of Environmental Impact Assessment of Faro WWTP.* Engineering study involving Hydrodynamic modelling of a tidally driven coastal lagoon. Lagrangian modelling of fecal coliform dispersion and accumulation in mussels along the lagoon.

09. 2011 – 12. 2012

**FP7 ARGOMARINE PROJECT**  
Researcher

*ARGOMARINE (Automatic Oil-Spill Recognition and Geopositioning integrated in a Marine Monitoring Network).* To develop and operational hydrodynamic and oil spill forecast model for the Tuscany Archipelago (Italy). Co-coordination of the modelling work package.

08.2011 – 09.2011

**NOAA COASTAL SERVICES CENTER**  
Trainee Internship

As a trainee in NOAA Coastal Services Center the main goal of the work was to support the environmental, social, and economic well-being of the coast by linking people, information, and technology.

09.2010 – 12.2010

**INSTITUTO SUPERIOR DE ENGENHARIA (UALG)**  
Researcher

*Technical Study of the Receiving Waters of Faro and Olhão WWTP.* Engineering study involving hydrodynamic modelling of a tidally driven coastal lagoon. Lagrangian modelling of fecal coliform dispersion and accumulation in mussels along the lagoon.

07.2007 – 03.2009

**SCOTTISH ENVIRONMENTAL PROTECTION AGENCY**  
Oceanographer/Modeller

To undertake environmental monitoring, assessment and reporting work relevant to an Environmental Science function. Undertaking scientific survey and analysis of environmental samples. Reporting analytical data and providing advice and information on its environmental significance. Participating in investigative studies, assessing environmental quality and liaising with internal and external customers. To provide scientific advice and information to internal customers, especially regulatory staff. Development and validation and analytical methods, including reporting of findings. Responsible for the maintenance and operation of a range of analytical instrumentation.

10.2004 – 10.2006

**INSTITUTO SUPERIOR DE ENGENHARIA (UALG)**  
Researcher

*Monitoring the receiving waters or urban WWTPs of Algarve.* Engineering study and monitoring assessment of the water quality in 5 estuarine water bodies. The work involved extensive field campaigns (currents, water levels, sediments, microbiology, biogeochemical variables), hydrodynamic modelling of the 5 water bodies. Also, Lagrangian modelling of faecal coliform dispersion and Water quality modelling in the 5 water Bodies (biogeochemical and primary production).

## EDUCATION

---

03.2009 – 04.2015

**UNIVERSIDADE DO ALGARVE, PORTUGAL**  
Doctor of Philosophy

PhD in Ocean Sciences, Numerical Modelling specialization. The thesis title is "Development of an operational tool for oil spill forecast in oil sensitive regions: Algarve Coast (Portugal) and Tuscany Archipelago (Italy)".

07.2011 – 08.2011

**DUKE UNIVERSITY, USA**  
Non-Degree Major

Integrated Marine Conservation Program which teaches the principles of conservation and preservation of the coastal and oceanic environment. The focus is on interdisciplinary problem solving using natural and social science theory to resolve real-world environmental problems.

01.2005 – 09.2006

**UNIVERSITY OF BERGEN, NORWAY**  
Master of Science

Integrated River-Basin and Coastal Zone Management. The thesis title is "Modelling hydrocarbon dispersion in two coastal ecosystems: Kongsfjord (Norway) and Patos Lagoon (Brazil)".

09.1999 – 07.2005

**UNIVERSIDADE DO ALGARVE, PORTUGAL**  
First Degree, Honours

Oceanography.

## AWARDS

---

2018

**DEEP SEA MINING: RESOLVING RISK, MIT organized workshop**  
Invited Expert

2016

**COST ACTION - EVALUATION OF OCEAN SYNTHESSES**  
Global Ocean Week Scholarship

2013

**UNIVERSITY OF MALTA**  
Summer School in Operational Oceanography Scholarship

|             |   |
|-------------|---|
| 2011        | <b>LUSO-AMERICAN FOUNDATION / IMAR</b><br>Luiz Saldanha/Ken Tenor Scholarship |
| 2009 – 2014 | <b>PORTUGUESE FOUNDATION FOR SCIENCE AND TECHNOLOGY</b><br>PhD Scholarship    |
| 2005 – 2006 | <b>JOINT MASTER IN WATER AND COASTAL MANAGEMENT</b><br>MSc Scholarship        |

## **SKILLS AND EXPERTISE**

---

### Scientific Skills

Experience in handling oceanographic and environmental monitoring equipment. Experience in data analysis of meteo-oceanographic and remote sensing datasets. This experience was gained through the participation in several research projects while a student, and during my work activities. I have experience with Fortran, Matlab, Gis tools, GMT and Surfer. I'm also experience in work with hydrodynamic models including MOHID and Delft 3D and ROMS. I have experience on the deployment and mission planning of OceanScan LAUV. Good command of Microsoft Office tools and internet related software. Basic knowledge of graphical design and video editing applications such as Photoshop, Illustrator and iMovie.

### Communication Skills

Throughout my professional path, I have presented my work to a different range of audiences, including scientist, regional and national policy committees, industry managers and general public. This experience provided me with good communication and mediation skills.

### Other Skills

Diligent; Ability to work independently with minimal supervision; Leadership and management skills; Attention to detail; Effective time management; Target driven; Excellent organizational skills; Resourceful; Excellent team player; Sociable.

## **QUALIFICATIONS**

---

|      |  |
|------|--|
| 2011 | <b>JERICO SUMMER SCHOOL ON OPERATIONAL OCEANOGRAPHY IN THE 21<sup>ST</sup> CENTURY - THE COASTAL SEAS</b><br>University of Malta, Lija (Malta) |
|------|--|

This summer school dealt with technical and theoretical aspects related to metocean observations, operational monitoring platforms, numerical modelling and forecasting, data quality control and management, data assimilation and assessments, data archiving and dissemination. Other aspects included downstream services, applications and links to a wide range of users. The school provided the participants with an overview of coastal observatories and European operational oceanography, now and in the future. We were presented state-of-the-art methods and tools of operational oceanography across inter-related disciplines from physics to ecology, and over wide geographic scales. We experienced how

this links to data acquisition and forecasting systems, and to managing sustainable development for scientific and socio-economic purposes.

- 2008**                    **FIRST AID FOR WATER USERS**  
**Focus Training (United Kingdom)**
- First aid course for water users, including hypothermia, drowning and cold water shock.
- 2007**                    **PERSONAL SURVIVAL TECHNIQUES**  
**Glasgow College of Nautical Studies**
- Personal Survival Techniques The training is approved by the Maritime and Coastguard Agency meeting the requirements laid down in STCW 95 Reg. VI/1 Section A-VI/1 Para.2.1.1.
- 2007**                    **DELFT 3D INTRODUCTORY COURSE**  
**WL | Delft Hydraulics**
- Introduction to the Delft 3D modelling system on the modules:
- Hydrodynamics of coastal and estuarine waters Modules: Delft 3D: REFGRID, QUICKIN, GPP, QUICKPLOT and FLOW
  - Water quality modelling Modules: Delft 3D – DIDO, PLCT and WAQ
  - Mid-field water quality and oil spills, using particle tracking Module: Delft 3D - PART

## **PUBLICATIONS**

---

### Peer Review International Journals

- Janeiro, J., Neves, A., Martins, F., Relvas, P., 2017. Integrating technologies for oil spill response in the SW Iberian coast. *Journal of Marine Systems*, 173, pp. 31-42. <http://doi.org/10.1016/j.jmarsys.2017.04.005>
- Sepp-Neves, A., Pinardi, N., Martins, F., Janeiro, J., Samaras, A., Zodiatis, G., De Dominicis, M., 2015. Towards a common oil spill risk assessment framework e Adapting ISO 31000 and addressing uncertainties. *Journal of Environmental Management*, 159, pp.158-168. doi:<http://dx.doi.org/10.1016/j.jenvman.2015.04.044>
- Janeiro, J., Zacharioudaki, A., Sarhadi, E., Neves, A., Martins, F., 2014. Enhancing the management response to oil spills in the Tuscany Archipelago through operational modelling. *Mar. Pollut. Bull.* 85, pp. 574-589. doi:10.1016/j.marpolbul.2014.03.021
- Santos, C.F., Michel, J., Neves, M., Janeiro, J., Andrade, F., Orbach, M., 2013. Marine spatial planning and oil spill risk analysis: Finding common grounds. *Mar. Pollut. Bull.* 74, pp. 73-81. doi: <http://dx.doi.org/10.1016/j.marpolbul.2013.07.029>
- Santos, C. F., Teixeira, Z. G., Janeiro, J., Gonçalves, R. S., Bjorkland, R., Orbach, M., 2012. The European Marine Strategy: Contribution and challenges from a Portuguese perspective. *Marine Policy*, 36, pp. 963-968 doi: 10.1016/j.marpol.2012.02.011
- Janeiro, J., Martins, F., Relvas, P., 2012. Towards the development of an operational tool for oil spills management in the Algarve coast. *J. Coast. Conserv.* 16, pp. 449-460. doi:10.1007/s11852-012-0201-8

- Martins, F., Janeiro, J., Gabriel, S. & Neves, R., 2009. Integrated monitoring of South Portugal water bodies: a methodology towards WFD. *Water Science & Technology* 60(8), 1979-1988. doi: 10.2166/wst.2009.509
- Janeiro, J., Fernandes, E., Martins, F., Fernandes, R., 2008. Wind and freshwater influence over hydrocarbon dispersal in Patos Lagoon, Brazil, *Marine Pollution Bulletin*, 56, pp: 650-665. doi: 10.1016/j.marpolbul.2008.01.011

### International Conferences

- Mills, L., Janeiro, J., Martins, F., 2019. The Impact of Sea Level Rise in the Guadiana Estuary. In: Rodrigues J. et al. (eds) *Computational Science – ICCS 2019*. ICCS 2019. *Lecture Notes in Computer Science*, vol 11539. Springer, Cham.
- Martins, F., Janeiro, J., 2018. The role of high-resolution oil spill response models in emergency scenarios, *The ATLANTIC POLEX.PT 2017 example*. 5as Jornadas de Engenharia Hidrográfica, 117-120, 19-21 Junho, Lisboa
- Janeiro, J., Neves, A., Campuzano, F., Martins, F., 2017. Improving the response to operational oil pollution in the South Iberian coast: a Super-Ensemble backtracking approach. *Proceedings of ECSA 2017 “Where Land Meets Ocean: The Vulnerable Interface*, October 2017, Shanghai (China).
- Janeiro, J., Martins, F., 2016. AtlantOS: Optimising and Enhancing the Integrated Atlantic Ocean Observing System. *Poster on the Global Ocean Week - Opportunities & Perspectives in Ocean modelling*, Toulouse, 10 – 14 October 2016.
- Janeiro, J., Neves, A., Martins, F. & Relvas, P., 2015. Integrating technologies for Oil Spill Monitoring in the South Iberian Coast. *47th. International Liege Colloquium on Marine Environmental Monitoring, Modelling and Prediction*, May 2015.
- Janeiro, J., Relvas, P., Neves, A. & Martins, F., 2015. Mesoscale patterns and their role on oil spill trajectories in the Southwest Iberian Coast. *47th. International Liege Colloquium on Marine Environmental Monitoring, Modelling and Prediction*, May 2015.
- A. Neves, N. Pinardi, F. Martins, A. Samaras, L. Giacomelli & J. Janeiro, 2015. IT – OSRA: applying super-ensemble simulations to estimate the oil spill hazard associated to operational and accidental oil spills. *47th. International Liege Colloquium on Marine Environmental Monitoring, Modelling and Prediction*, May 2015.
- Janeiro, J., Relvas, P., Neves, A. & Martins, F., 2014. Mesoscale patterns and their role on oil spill trajectories in the Southwest Iberian Coast. *Poster on the 7<sup>th</sup> EuroGOOS Conference – Operational Oceanography for Sustainable Blue Growth*, Lisbon 28 – 30 October 2014.
- Janeiro, J., Martins, F., Zacharioudaki, A., Sahardi, E., Neves, A., 2013. Enhancing the management response to oil spills in the Tuscany Archipelago through operational modeling. *7th. International Conference on Marine Pollution and Ecotoxicology*, Hong Kong, China.
- Janeiro, J., Martins, F., Zacharioudaki, A., 2011. Oil Spill forecasting tools integrated in an early detection and monitoring system for the Tuscany Archipelago. *Poster Session presented at European Geosciences Union 2011 Assembly*, Vienna 4 - 8 April 2011.
- Janeiro, J., Martins, F., Relvas, P., 2010. Towards the development of an operational tool for oil spills management in the Algarve coast. *International Conference of Coastal Conservation and Management – ICCCM10*, Cascais 11 – 17 April 2010.

- Martins, F., Janeiro, J., Suruj, B., Verelst, N. and Cocco, M., 2010. Argomarine: A New Oil Spill Early Warning System Integrating Modeling, In-Situ and Remote Sensing, 9th. International Conference on Hydroinformatics, Tianjin, China.
- Martinho, V., Monteiro, I., Fernandes, E., Janeiro, J., 2008. Numerical Modelling of oil spills in the Patos Lagoon Estuary. Rio Oil & Gas Expo and Conference, Rio de Janeiro, September 2008.
- Martins, F., Janeiro, J., Gabriel, S., Venâncio, A., Neves, R., Chícharo, L. and Santos, R., 2007. Advanced monitoring of South Portugal water bodies towards WFD. Poster on the Water Status Monitoring under the WFD Conference, IWO, Lille, France.
- Flávio Martins, Janeiro, J., Venâncio, A., Gabriel, S., Lopes, J., Neves, R., Freire, J. and Martins, A., 2006. Hydroinformatics Based Decision-Making Integrating Modelling, Sampling and Profiling: the Ria Formosa Case. Proceedings of the 7<sup>th</sup> International Conference on Hydroinformatics, HIC 2006, Nice, FRANCE.
- Martins, F., A. Brito, J. Janeiro, J. Lopes, A. Venâncio, S. Nunes, C. Garcia, S. Sousa, P. Pina, D. Anjos, R. Neves, C. Madeira, A. Martins e J. Freire, 2005. Combining sampling, profiling, remote sensing and modelling to efficiently monitoring estuarine and coastal water quality. Proceedings of ECSA 2005, Edinburgh.