Jorge Aguilar-Cabello

PhD

Contact

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LinkedIn

Programming

Matlab ●●●●○
Python ●●●●○
git ●●●○○
OpenCl ●●◐○○
Cuda ●●◐○○
C ●●◐○○
Bash ●●○○○
html & css ●●○○○

Language

Spanish Native
English B2

References

Carlos del Pino Peñas
(Full professor)
Luis Parras Anguita
(Senior Lecturer)

Portfolio

Check my open source projects in GitLab:
https://gitlab.com/jacabello

Others

Driving license
3D printer enthusiast

QR contact

About me

I'm an industrial engineer in love with programming and multidisciplinary challenges. I've been a full time interim lecturer at University for 3 years, the last one being coordinator of the subject of fluid mechanics. At the same time, I completed my doctoral dissertation based on experimental research. As of now, I'm a specialist engineer at Linde Material Handling as a commissioning programmer for autonomous guided vehicles (AGVs), where I work in an international environment, primarily focused in German factories. Additionally, I continue developing useful programming tools for research using Python, MATLAB and OpenCL as can be seen in my GitLab profile.

Experience

Currently **Commissioning Engineer** — Linde Material Handling
Commisioning engineer for the execution of automation projects using Automated Guided Vehicles.

2018/21 **Interim lecturer** — Málaga University
Full teaching load at the School of Engineering in the area of fluid mechanics. Coordinator of:
- Hydraulic Turbo-machines (GITI, 2020/2021)
- Fluid Mechanics (GIEL, 2019/2020)

2019 **R&D Researcher** — IRPHE Marsella
Research stay of 3 months. Modification of airfoils for noise reduction in helicopters.

2017/18 **R&D Researcher** — Málaga University
A contract under a research project. Measurement of aerodynamic forces on flapping wing configurations using particle image velocimetry.

Education

2018/21 **PhD in Fluid Mechanics** — Málaga University
Title: On the steady and unsteady aerodynamics of wing models at low Reynolds numbers for micro air vehicle applications.

2014/17 **Master Degree in Industrial Engineering** — Málaga University.
Thesis: Thrust coefficient of a flapping plate obtention using a towing tank.

2010/14 **Bachelor Degree in Industrial Engineering** — Málaga University
Thesis: Resolution of practical cases of combustion processes using MATLAB.

Publications & Conferences

DPIVsoft-OpenCL: A Multicore CPU-GPU Accelerated Open Source Code for 2D Particle Image Velocimetry. Preprint article available at **SSRN 4109022**

Experimental investigation of a rotor blade tip vortex pair. CEAS Aeronaut J 13, 97–112 (2022). **DOI:10.1007/s13272-021-00555-1**

On the lift curve slope for rectangular flat plate wings at moderate Reynolds number. *J. Wind. Eng. Ind. Aerodyn*, 208, 104459 (2021). **DOI:10.1016/j.jweia.2020.104459**

On the onset of negative lift in a symmetric airfoil at very small angles of attack. *Physics of Fluids*, 32, 055107 (2020). **DOI:10.1063/5.0008348**

Influence of the aspect ratio and Reynolds number on the aerodynamics characteristics of a NACA0012 wing model, *Workshop on Fluid Mechanics*, Granada (2019).

Thrust and lift coefficients of rigid flapping plate measured in towing tank tests using 2D-PIV, *International Symposium on Applications of Laser and Imaging Techniques to Fluid Mechanics* (2018).