Bernat Font Garcia

Contact Information

b.fontgarcia@soton.ac.uk github.com/b-fg

Research Interests

Computational fluid dynamics, turbulence, flow modelling, physics-based deep learning and data-driven models, high-perfomance computing.

Education

Ph.D. Candidate, University of Southampton 2015-2020
Ph.D. in Computational Fluid Dynamics
Thesis: Modelling of Flow Past Long Cylindrical Structures
Supervisors: Dr. G.D. Weymouth, Prof. O.R. Tutty, Dr. V.-T. Nguyen
Visiting Researcher: IHPC, A*STAR, Singapore. Research attachment 2018-2020
funded by the ARAP mobility program

Master of Science, Cranfield University 2014-2015
M.Sc. in Computational Fluid Dynamics, 86/100
Thesis: High-order Shock-capturing Schemes for Micro Shock Tubes
Supervisor: Dr. L. Könözsy
One year Degree program coursed as a Double Degree with the Ingeniería Superior in Aeronautical Engineering

Ingeniería Superior, Universitat Politècnica de Catalunya 2012-2015
Ingeniería Superior in Aeronautical Engineering, 70/100
Mentor: Prof. C.-D. Pérez-Segarra
Two years Degree program equivalent to Master of Engineering

Ingeniería Técnica, Universitat Politècnica de Catalunya 2009-2012
Ingeniería Técnica in Aeronautical Engineering, 77/100
Three years Degree program equivalent to Bachelor of Engineering

Conference papers

Font Garcia, B., Weymouth, G.D. & Tutty, O.R. 2017 Analysis of two-dimensional and three-dimensional wakes of long circular cylinders. *OCEANS'17 MTS/IEEE*, UK. doi.org/10.1109/OCEANSE.2017.8084904

Conference and Seminar Talks

Analysis of two-dimensional and three-dimensional wakes of long circular cylinders, OCEANS'17 MTS/IEEE Conference. (June 2017, UK)

On two-dimensional and three-dimensional turbulence of wake flows, Fluid Structure Interactions Group seminar series, University of Southampton. (May 2017, UK)

A two-dimensional model for three-dimensional symmetric flows, UK Fluids Conference. (September 2016, UK)

Teaching experience

Demonstrator, University of Southampton 2015-2017
Aerodynamics module: Nozzle lab
Propulsion module: Ramjet, turbojet and rocket engine labs
Aerothermodynamics module: Marking of lab reports

Private tutor 2011-2014
Teaching mathematics, physics and programming to High School and 1st year Undergraduate students

Funded Research

University of Southampton FEE Education Hub PhD grant (2015), GBP 28,353
A*STAR ARAP Research Mobility Programme grant (2015), SGD 74,500

Relevant Skills

Languages:	English, Catalan, Spanish
Programming:	Fortran, Python, C++, Android (Java), MPI, LaTeX, Matlab, git
Others:	Experienced in Linux systems
	Experienced in CFD-related commerical software: ANSYS Fluent, ICEM CFD, Paraview, Tecplot
Personal projects:	*HowAbout*: Android platform to connect people willing to share similar hobbies
	NuatsBot: Cryptocurrency signals bot based on technical analysis indicators

References

Gabriel D. Weymouth, Associate Professor, Fluid and Structure Interactions Group, University of Southampton, `g.d.weymouth@soton.ac.uk`

Owen R. Tutty, Professor, Aerodynamics and Flight Mechanics Group, University of Southampton, `o.r.tutty@soton.ac.uk`

László Könözsy, Lecturer, Centre for Computational Engineering Sciences, Cranfield University, `laszlo.konozsy@cranfield.ac.uk`

Carles-David Pérez-Segarra, Professor, Heat and Mass Transfer Technological Center, Universitat Politècnica de Catalunya, `segarra@cttc-upc.net`