Bernat Font Garcia

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b-fg.com

Research interests

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

Education

 $\textbf{Ph.D.} \ \text{Candidate in Computation Fluid Dynamics}, \ \textit{University of Southampton}$

2015-2020

Thesis: Modelling of Flow Past Long Cylindrical Structures

Supervisors: Dr. G.D. Weymouth, Prof. O.R. Tutty, Dr. V.-T. Nguyen

 ${\it Visiting \; Researcher} \hbox{: IHPC, A*STAR, Singapore. Research attachment funded by the ARAP}$

mobility

M.Sc. in Computational Fluid Dynamics, Cranfield University

2014-2015

Thesis: High-order Shock-capturing Schemes for Micro Shock Tubes

Supervisor: Dr. L. Könözsy

Double Degree with Ingeniería Superior in Aeronautical Engineering

Ingeniería Superior in Aeronautical Engineering, Universitat Politècnica de Catalunya

2012-2015

Mentor: Prof. C.-D. Pérez-Segarra Equivalent to Master of Engineering

Ingeniería Técnica in Aeronautical Engineering, Universitat Politècnica de Catalunya

2009-2012

Equivalent to Bachelor of Engineering

Experience

Visiting Researcher, Institute of High-Performance Computing, A*STAR, Singapore Doctoral Researcher, University of Southampton, UK

2017-2020

2015-2020

Peer-reviewed Journal Publications

Font Garcia, B., Weymouth, G. D., Nguyen, V.-T. & Tutty O. R. 2019 (Accepted/In Press) Span effect on the turbulence nature of flow past a circular cylinder. *Journal of Fluid Mechanics*.

Conference Proceedings

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

Published Abstracts

Font Garcia, B., Weymouth, G. D. & Tutty, O. R. 2016 A two-dimensional model for three-dimensional symmetric flows. *UK Fluids Conference*, London, UK. Abstract

Invited Talks

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

Funded Research

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

SGD 74,500

Teaching

Demonstrator, University of Southampton 2015-2017

Aerodynamics: Nozzle lab

Propulsion: Ramjet, turbojet and rocket engine labs Aerothermodynamics: Marking of lab reports

Private tutor 2011-2014

Mathematics, physics and programming to High School and Undergraduate students

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

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