CURRICULUM VITAE
IOANNIS ASPROULIAS

EDUCATION AND RESEARCH

05/2014-09/2015 **Institut de Mecanique des Fluides de Toulouse- Toulouse, France**
- Post-doctoral Research Fellowship- STAE Foundation
- Research Project : DYNAMORPH
- European Project : TFAST

01/2010-06/2014 **The University of Manchester- Manchester, UK**
- PhD in Mechanical Engineering
- Research Topic: RANS Modelling for Compressible Turbulent Flows Involving Shock Wave Boundary Layer Interactions

03/2009-09/2009 **Imperial College London- London, UK**
- Post-graduate Researcher in Mechanical Engineering
- Research in Stability and Transition in Shear Flows

09/2002-11/2008 **National Technical University of Athens- Athens, Greece**
- Department: Mechanical Engineering
- Specialization: Aerospace Engineering
- Diploma thesis: Experimental aerodynamic analysis of an Unmanned Aerial Vehicle with joined wing configuration
- Grade point average of Diploma 8.42/10.0

10/2001-06/2002 **Athens University of Economics and Business- Athens, Greece**
- Courses towards a degree in Informatics

RESEARCH EXPERIENCE

05/2014-09/2015 **Post-doctoral Research:** Institut de Mecanique des Fluides de Toulouse- Toulouse, France
DYNAMORPH: Computational study of the performance of morphing wing technologies for the control of transonic buffet and von Karman instabilities over an airfoil provided by Airbus.
TFAST: Computational study of transonic buffet instability over a 'laminar' wing designed by Dassault Aviation, incorporating hybrid RANS-LES and URANS turbulence models. Flow analysis with Proper Orthogonal Decomposition.

01/2010-06/2014 **PhD Research:** The University of Manchester- Manchester, UK
Implementation, validation and modification of advanced RANS turbulence models for the efficient prediction of Shock Wave/Turbulent Boundary Layer Interactions in the transonic and supersonic regime.

03/2009-09/2009 **Post-graduate Research:** Imperial College London- London, UK
Introduction to theoretical aspects of linear modal, non-modal and global stability analysis of shear flows. Computation of optimal disturbances in the Blasius boundary-layer and plane Poiseuille flow using and modifying a Matlab code.

PUBLICATIONS

D. Szubert, I. Asproulias, F. Grossi, R. Duvigneau, Y. Hoarau, M. Braza. Numerical study of the turbulent transonic interaction and transition location effect involving optimisation around a supercritical airfoil. (**accepted** in European Journal of Mechanics- B/Fluids)

I. Asproulias, A.J. Revell, T.J. Craft. Modelling Shock Wave/Boundary Layer Interactions using Advanced RANS Models. Proc 29th Int. Symposium on Shock Waves, Madison, Wi, USA, **July 2013**

I. Asproulias, A.J. Revell, T.J. Craft. An Investigation into Solver Strategies for the Modelling of Compressible Turbulent Flow. Proc 28th Int. Symposium on Shock Waves, Manchester, UK, **July 2011**

TEACHING EXPERIENCE

9/2010- 06/2013 Teaching Assistant (undergraduate)- School of MACE, The University of Manchester, UK
Modules: Fluid Mechanics, FORTRAN, MATLAB

WORKSHOPS ATTENDED

01/2011 OpenFOAM Advanced Course, Workshop- London, UK

03/2009 Indo-European network on Advanced Instability Methods, Workshop- University of Cambridge, UK

PROFESSIONAL MEMBERSHIPS

10/2010 Member of the Technical Chamber of Greece

COMPUTING AND IT SKILLS

- Programming of advanced RANS models in the open source CFD package OpenFOAM (C++)
- Knowledge of Programming Language Fortran
- Knowledge of Programming Language Matlab
- Knowledge of Finite Difference/Volume Programming
- Knowledge of the Visualization Package Paraview
- CFD simulations on HPC facilities
- Knowledge of LATEX

LANGUAGES

- Greek (Native Speaker)
- English (Toefl iBT, score 103/120, 2009; Certificate of Proficiency in English, University of Michigan, 2003)

DATE: 12/10/2015 **SIGNATURE:**