Curriculum Vitae
Dr Andrea Da Ronch

Personal Details
Andrea Da Ronch New Frontiers Fellow Aeronautics, Astronautics and Computational Engineering Faculty of Engineering and the Environment University of Southampton Highfield Campus Southampton, SO17 1BJ, UK Tel: 0044 (0)23 8059 4787 Email: A.Da-Ronch@soton.ac.uk Web: http://www.adaronch-lab.com/ Nationality: Italian Date of Birth: 23/08/1983

Note the following acronyms are used throughout:

AIAA – America Institute of Aeronautics and Astronautics
AY – Academic Year
CEAS – Council of European Aerospace Societies
CI – Co-Investigator
EC – European Commission
EPSRC – Engineering and Physical Sciences Research Council
HEA – Higher Education Academy
IP – Individual Project
PI – Principal Investigator
RAEng – Royal Academy of Engineering
TIME – Top Industrial Managers of Europe

Employment History	
Mar 2015 – Feb 2016	Industry Secondee, “Research and Academic Collaboration in Industrial Aircraft Design”, RAEng (ISS1415\7\44) Airbus Operations Ltd Filton, Bristol, UK
Apr 2013 – Present	New Frontiers Fellow Lecturer of Aircraft Structural Design and Aeroelasticity Aerodynamics and Flight Mechanics research group Faculty of Engineering and the Environment University of Southampton, Southampton, UK
Apr 2011 – Mar 2013	Post-doctoral Research Associate “Nonlinear Flexibility Effects on Flight Dynamics and Control of Next-Generation Aircraft”, EPSRC (EP/I014594/1) University of Liverpool, Liverpool, UK
Oct 2008 – Mar 2012	PhD student University of Liverpool, Liverpool, UK
Oct 2008 – Jun 2010	Research Assistant “Simulating Aircraft Stability and Control Characteristics for Use in Conceptual Design”, EC FP6 (FP6-030838) University of Liverpool, Liverpool, UK

Academic History	
Nov 2014	Fellow of the Higher Education Academy (PR076955) https://www.heacademy.ac.uk/

Mar 2012	PhD degree in Aerospace Engineering School of Engineering University of Liverpool, Liverpool, UK
Oct 2008	MSc degree in Aeronautical Engineering (equivalent First class) Department of Aerospace Engineering Politecnico di Milano, Milan, Italy
Sep 2008	Double MSc degree in Aeronautical Engineering, TIME award https://www.time-association.org/ Department of Aeronautical and Vehicle Engineering KTH – Royal Institute of Technology, Stockholm, Sweden
Sep 2005	BSc degree in Aerospace Engineering (equivalent First class) Department of Aerospace Engineering Politecnico di Milano, Milan, Italy

Track Record of Research Funding	
Submitted 29 Sep 2016; under review	Project Coordinator, “Innovative Design of Elastic Aircraft” H2020-MG-2016-2017 Call, MG-1.1-2016 Topic Total grant value: €6,148,868.75
Jan 2017 – Dec 2018	PI, “FALCon – Fast Aircraft Load Calculations” EPSRC (EP/P006795/1) Grant value: £120,960
Jun 2016 – Jul 2016	Visiting UK Researcher, “Modelling and control for next generation flexible aircraft” FAPESP (2015/50448-3) PI: Prof Flávio José Silvestre Instituto Tecnológico de Aeronáutica, Brazil
Jan 2016 – Dec 2017	PI, “Modelling and control for next generation flexible aircraft” Xian Jiaotong University, China (SV2015-KF-18) Grant value: CYN100,000
Oct 2015 – Feb 2017	PI, “An outflow buffer zone based on the far-field self-similarity of high-Reynolds-number subsonic turbulent jet flows” RAEng, Netwon Research Collaboration Programme (NRCP1516/1/105) Grant value: £20,000 CI: Prof Carlos Anissem Soares Moser, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Brazil
Oct 2015 – Feb 2016	PI, “Gust Response Analysis and Buffet of Elastic Aircraft in Transonic Flows” RAEng, Distinguished Visiting Fellowships (DVF1516\3\16) Total grant value: £5,950
Mar 2015 – Feb 2016	PI, “Research and Academic Collaboration in Industrial Aircraft Design” RAEng, Industrial Secondments Scheme (ISS1415\7\44) Grant value: £24,100 Industry host during Secondment: Airbus Operations Ltd., UK
Jan 2015 – Dec 2015	PI, “Fast Nonlinear Aeroelastic Search for Loads Assessment” RAEng, Netwon Research Collaboration Programme (NCRP/1415/51) Grant value: £16,000 CI: Prof Daouchun Li, Beihang University, Beijing, China
Apr 2014 – Apr 2015	CI, “Wind Tunnel Investigations of Unsteady Aerodynamic Loads” Universiti Tecknologi Malaysia, Johor Bahru, Malaysia Grant value: £40,000 PI: Dr Nik Ahmad Ridhwan Nik Mohd
Jan 2014 – Jun 2015	PI, “Aero-servo-elastic Assessment of Advanced Vehicles Concepts” Annual Adventures in Research Grant; Research Group Total grant value: £17,000
Apr 2011 – Mar 2013	Post-doctoral Research Associate, “Nonlinear Flexibility Effects on Flight Dynamics and Control of Next-Generation Aircraft”

	EPSRC (EP/I014594/1) Grant value: £264,622
Aug 2010	Aerospace Speakers Travel Grants Royal Aeronautical Society Grant value: £250
Oct 2008 – Jun 2010	Research Assistant, "SimSAC – Simulating Aircraft Stability and Control Characteristics for Use in Conceptual Design" EC FP6 (FP6-030838) Grant value: €3,282,343

Honours and Awards	
Nov 2014	Fellow of the Higher Education Academy (PR076955)
May 2015	Nominated "*Outstanding Lecturer*" at the Excellence in Teaching Awards 2015 University of Southampton Students Union, UK Link: https://www.unionsouthampton.org/about/union-awards/2014/eta/
Sep 2014	Award "*La Penna Nera per la Nostra Montagna*" by Associazione Nazionale Alpini (a body of the military Italian army) for achieving distinction in higher education and research. The ceremony was widely covered at local and national level. National newspapers: http://www.ilgazzettino.it/PAY/BELLUNO_PAY/penna_alpina_a_da_ronch_e_piol/notizie/877911.shtml TV news: http://www.telebelluno.it/wp/16264
May 2014	Nominated "*Outstanding Lecturer*" at the Excellence in Teaching Awards 2014 University of Southampton Students Union, UK Link: https://www.unionsouthampton.org/about/union-awards/2014/eta/
Dec 2012	Award "*Speciale Riconoscimento ai Ricercatori Bellunesi all'Estero*" Rotary International, Belluno, Italy
Sep 2008	Double MSc degree in Aeronautical Engineering Top Industrial Managers of Europe (TIME) programme between Politecnico di Milano (Italy) and Royal Institute of Technology (Sweden)

National and International Collaborations

Industry and Research Centre

- Airbus Defence and Space, Germany. Contact Point: Fernass Daoud.
- Airbus Defence and Space, Spain. Contact Point: Felix Arevalo Lozano.
- AirInnova, Stockholm, Sweden. Contact point: Dr Mengmeng Zhang.
- Airbus Operations Ltd., Filton, UK. Contact point: Murray Cross, Tom Wilson.
- Beijing Aeronautical Science and Technology Research Institute of COMAC (BASTRI), Beijing, China. Contact point: Dr Jielong Wang.
- CFS Engineering, Lausanne, Switzerland. Contact point: Prof Jan Vos.
- China Academy of Aerospace Aerodynamics, Beijing, China. Contact point: Dr Yongzhi Wang.
- DLR, Germany. Contact point: Bjoern Nagel.
- DSTL, Portsdown West, UK. Contain point: Trevor Birch, Dr Joseph Coppin.
- iCHROME, Bristol, UK. Contact point: Dr Luca Lanzi.
- Instituto Tecnológico de Aeronáutica, Brazil. Contact point: Prof Flávio José Silvestre.
- Israel Aircraft Industries, Israel. Contact point: Daniel Budianu.
- Marques Aviation Ltd., Southport, UK. Contain point: Dr Pascual Marques.
- MSC Software Ltd., Frimley, UK. Contact point: Douglas Marriott, Mike Coleman.
- NLR, Netherlands. Contact point: Huub Timmermans.
- Noesis Solutions, Leuven, Belgium. Contact point: Ing. Roberto D'Ippolito, Marco Panzeri.
- Onera, France. Contact point: Schmollgruber.
- US Air Force Academy, Colorado Springs, USA. Contact point: Dr Mehdi Ghoreyshi.

University

- Beihang University, Beijing, China. Contact point: Prof Daochun Li.

- École Polytechnique de Montréal, Montréal, Canada. Contact point: Prof Éric Laurendeau.
- Imperial College, London, UK. Contact point: Dr Rafael Palacios.
- Indian Institute of Technology Roorkee, Roorkee, India. Contact point: Dr Dhish Saxena.
- Politechnika Warszawska, Warsaw, Poland. Contact point: Tomasz Grabowski
- Politecnico di Milano, Milan, Italy. Contact point: Prof Sergio Ricci.
- Politecnico di Turino, Turin, Italy. Contact point: Prof Gaetano Iuso, Prof Elvio Bonisoli.
- Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, Brazil; contact point: Prof Carlos Moser.
- KTH – Royal Institute of Technology, Stockholm, Sweden. Contact point: Prof Art Rizzi.
- Technion – Israel Institute of Technology, Israel. Contact point: Prof Daniella Raveh.
- Universiti Tecknologi Malaysia, Johor Bahru, Malaysia. Contact point: Dr Nik Ahmad Ridhwan Nik Mohd, Prof Shumaimi Bin Mansor.
- University of Liverpool, Liverpool, UK. Contact point: Prof Ken Badcock, Prof John Mottershead.
- University of Surrey, Guilford, UK. Contact point: Dr Dave Birch.
- Xi'an Jiaotong University, Xi'an, China. Contact point: Prof Cheng Gang.
- Zurich University of Applied Sciences, Switzerland. Contact point: Prof Marcello Righi.

Software Developments

- Since 2008, Dr Da Ronch has taken an active role in the development and integration of the CEASIOM (Computerised Environment for Aircraft Synthesis and Integrated Optimisation Methods) software, which is adopted worldwide by academia and industry. Currently, he is one of the main developers of the software and leads the implementation of new design tools to enable routine use of high-fidelity analyses for aeroelasticity and flight dynamics of complete aircraft configurations.
  http://www.ceasiom.com/
- Developments were carried out between 2006 and 2008 within the NeoCASS (Next generation Conceptual Aero-Structural Sizing) software, then superseded by an active role within the CEASIOM framework.
  www.neocass.org/
- Dr Da Ronch has implemented an improved algorithmic solution of the infinite-swept wing problem within the DLR-Tau CFD Solver. The method is available for production since September 2016.

National & International Memberships	
2016 – Present	Member NATO AVT-251 and AVT-282
2014 – Present	Member AIAA Atmospheric Flight Mechanics Technical Committee
2014 – Present	Member European Aeronautics Science Network
2014 – Present	Member CEAS; Member CEAS Aircraft Design Technical Committee
2014 – Present	Member Academic Senate of the University of Southampton
2014 – Present	Fellow of the Higher Education Academy
2010 – Present	Member AIAA

Teaching Activities and Responsibilities	
Taught Modules	
AY 2016/17 – Present	SESA6077 Aeroelasticity, University of Southampton Level 7 in the FHEQ, 15 CATS, about 5 students Module Lead and Lecturer (100%) http://www.southampton.ac.uk/engineering/undergraduate/modules/sesa6077-aeroelasticity.page
AY 2014/15 – Present	SESA3026 Aircraft Structural Design, University of Southampton Level 6 in the FHEQ, 15 CATS, about 120 students Module Lead and Lecturer (100%) http://www.southampton.ac.uk/engineering/undergraduate/modules/sesa3026_aircraft_structural_design.page

AY 2013/14	SESA3001 Structural Design, University of Southampton Level 6 in the FHEQ, 10 CATS, about 120 students Module Lead and Lecturer (100%) Dismissed; replaced by SESA3026 from AY 2014/15
AY 2011/12 – 12/13	Aerospace Capstone Group Design Project, University of Liverpool Level 7 in the FHEQ, 30 CATS, about 25 students Instructor
External Examiner of PhD Students	
2016	Fabio Gigante, University of Glasgow PhD title: “Time- and frequency-domain turbulent flow analysis of wind turbine unsteady aerodynamics” Supervisor: Prof Sergio Campobasso
Internal Examiner of PhD Students	
2015	Alexandru Barbu, University of Southampton Supervisor: Prof B. Ganapathisubramani
2014 – Present	Kultamis Bercin, University of Southampton PhD title: “Computational fluid dynamics modelling of stochastic gusts and their interactions with wind turbine blades” Supervisor: Prof Zhen-Tong Xie
2014 – Present	Isherdeep Singh, University of Southampton Supervisor: Prof Andy Keane

Supervision of Research Students and Assistants	
Post-doctoral Research Assistants	
Jan 2017 – Present	To be appointed
Post-Graduate Research Students (main supervisor)	
Oct 2015 – Present	Daniel Kharlamov, University of Southampton PhD title: “Computational Aeroelasticity for Next-generation Aircraft”
Jun 2015 – Present	Guangda Yang, University of Southampton PhD title: “Shape Optimisation with Aeroelastic Constraints”
Jan 2015 – Present	M. Anas Abd Bari, University of Southampton PhD title: “Aeroelastic Loads Calculations for Wind Turbine Design”
Graduate Students	
AY 2015/16	B. Dias, University of Southampton MSc title: “Aeroelastic analysis and optimisation of aircraft wings using a CFD method”
AY 2015/16	F. Gao, University of Southampton MSc title: “Hinf control design and simulation for active flutter suppression on flexible wings”
AY 2015/16	E. Montes De Oca Valle, University of Southampton MSc title: “Analysis of a flexible winglet rotation using fluid structure interaction coupled simulation”
AY 2015/16	R. Ruiz Ruiz, University of Southampton MSc title: “Vortical flow predictions around a UCAV”
AY 2015/16	J. Fong, A. Leung, C. Nicolae, T. Osborne, G. Teh, P. Toshkov and J. Yap, University of Southampton Group Design Project title: “Next-generation Flexible Aircraft: Modelling and Wind Tunnel Testing”
AY 2014/15	J. Coombs, A. Flinton, K. Kacevaité, D. Ramasawmy, C. Sampat, P. Singh and V. Song, University of Southampton Group Design Project title: “Design, Build, and Test a Wind Tunnel Aero-servo-elastic Model”
Mar 2012 – Oct 2012	Ubaid Akram, University of Liverpool MSc title: “Influence of Aerodynamic Models on Flight Simulation”
Undergraduate Students	
AY 2015/16	K. Balla, University of Southampton

	IP title: “An experimental and numerical approach to unsteady nonlinear aerodynamics”
AY 2015/16	S. Curtis, University of Southampton IP title: “Evaluation of CFD Methods on Slender Missile Configurations”
AY 2015/16	V. Fung, University of Southampton IP title: “Physics-based nonlinear reduced order models for estimations of aircraft loads and dynamics”
AY 2015/16	S. Gurung, University of Southampton IP title: “Experimental Characterisation of Flexible Wings”
AY 2015/16	K. Haberstraw, University of Southampton IP title: “Influence of Aerodynamic Models on Flight Simulation”
AY 2015/16	H. Jiang, University of Southampton IP title: “Aerodynamic Shape Optimisation with Stability Constraints”
AY 2015/16	E. Mancini, University of Southampton IP title: “Adaptive Control for Loads Alleviation and Flutter Extension”
AY 2015/16	L. Shutler, University of Southampton IP title: “Evaluation of CFD Methods on Slender Missile Configurations”
AY 2015/16	F. Ting, University of Southampton IP title: “Experimental Characterisation of Flexible Wings”
AY 2015/16	R. Howes-Yarlett, University of Southampton IP title: “Conceptual Design Study of a Blended Wing Body Seaplane”
AY 2014/15	T. Nalywajko, University of Southampton IP title: “Designing, Building, and Testing a Flexible Wing”
AY 2014/15	L. Wheeler, University of Southampton IP title: “Evaluation of CFD Methods on Slender Missile Configurations”
AY 2014/15	W. Fry, University of Southampton IP title: “Aspects of Reduced Order Modelling in Nonlinear Systems”
AY 2014/15	A. McConville, University of Southampton IP title: “Conceptual Design Study of a Blended Wing Body Seaplane”
AY 2014/15	P. Prakongtham, University of Southampton IP title: “Influence of Aerodynamic Models on Flight Simulation”
AY 2013/14	C. Tripp, University of Southampton IP title: “Evaluation of CFD Methods on Slender Missile Configurations”
AY 2012/13	I. Ingaran, University of Liverpool (co-supervised) IP title: “Influence of Aerodynamic Model on Flight Simulation”
AY 2012/13	N. Kumar, University of Liverpool (co-supervised) IP title: “Influence of Aerodynamic Model on Flight Simulation”
AY 2012/13	M.K. Hossain, University of Liverpool (co-supervised) IP title: “Impact of Nonlinearity on Gust Load Prediction”
AY 2012/13	A. Ranasinghe, University of Liverpool (co-supervised) IP title: “Aerodynamic Models for Flight Simulation”
AY 2011/12	M. Cooper, University of Liverpool (co-supervised) IP title: “Aerodynamic Models for Flight Simulation”
AY 2011/12	A. Reed, University of Liverpool (co-supervised) IP title: “Aerodynamic Models for Flight Simulation”
AY 2011/12	A. Borodina, University of Liverpool (co-supervised) IP title: “Investigation on the Reduction of Aileron Effectiveness for Two Aircraft Configurations by Using CFD”
AY 2010/11	L. Esparan, University of Liverpool (co-supervised) IP title: “Investigation of Aerodynamic Characteristics Using CFD”
AY 2010/11	M. Virtue, University of Liverpool (co-supervised) IP title: “Implementation of Quasi-Steady Derivatives Using CFD”
AY 2009/10	M. Hawkes, University of Liverpool (co-supervised) IP title: “Assessment of Methods for Analysis of Gust Loads”
Visiting Professors	
Jul 2016 – Jun 2017	Prof C. Xie, Beihang University, China

Jun 2015 – Jan 2016	Prof C. Moser, Pontifícia Universidade Católica do Rio Grande do Sul, Brazil
Feb 2015 – Mar 2015 Jul 2015 – Oct 2015	Prof D. Li, Beihang University, China
Visiting Post-Graduate Research Students	
Aug 2015 – Jan 2016	C. Guo, Tsinghua University, China PhD title: “Prediction of Aerodynamic Derivatives using CFD”
Jul 2015 – Oct 2015	Y. Wu, Beihang University, China PhD title: “Aeroelasticity and Energy Harvesting”
Jul 2015 – Oct 2015	K. Liu, Beihang University, China PhD title: “Reduced Order Models for Flapping Wings”
Oct 2013 – Oct 2014	Y. Wang, China Academy of Aerospace Aerodynamics, China PhD title: “Aeroelastic Control of Flexible Aircraft”
Visiting Graduate Students	
Mar 2016 – Nov 2016	Francesco Mazzacchi, Universita’ di Bologna, Italy MSc title: “Analysis of turbulent scales of motion in aeroelastic problems”
Jul 2015 – Oct 2015	Matteo Franciolini, from Politecnico di Torino, Italy MSc title: “Rapid Aeroelastic Loads Assessment using CFD” * Conference paper converted into a journal publication
Mar 2014 – Oct 2014	Marco Cristofaro, Politecnico di Torino, Italy MSc title: “Elements of Computational Flight Dynamics for Complete Aircraft” * Award “*Premio Professor Aldo Muggia*” from Politecnico di Torino
Mar 2014 – Oct 2014	Michele Gianfrancesco, Politecnico di Torino, Italy MSc title: “Functional Modelling and Implementation of Energy Harvesters for Aerospace Applications”
Visiting Undergraduate Students	
Jul 2015 – Sep 2015	C. Bouter, ENSEEIHT, France Title: “Wing Modelling for Aeroelastic Coupling”
Mar 2014 – Nov 2014	T. Dechelle, Institut Supérieur de l'Aéronautique et de l'Espace, France Title: “Atmospheric Instabilities using Large Eddy Simulations”
Jun 2014 – Sep 2014	E. Picouet, Institut National Polytechnique de Toulouse, France Title: “Aeroelastic Analysis using Coupled Fluid/Structure Solvers”

Esteem Indicators
Google Scholar
https://scholar.google.co.uk/citations?user=QZiM8ysAAAAJ&hl=en&oi=ao Total citations: 447 h-index: 12 i10-index: 16

Mendeley
https://www.mendeley.com/profiles/andrea-da-ronch/
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Signed by Andrea Da Ronch
