europass Curriculum vitae

PERSONAL INFORMATION Francesco Saltari

CURRENT POSITION Postdoctoral researcher at Sapienza University of Rome

RESEARCH ACTIVITY

Main research interests
- Virtual sensing applied to ships and flexible aircrafts.
- Integrated models of aeroelasticity and flight dynamics.
- Sloshing effects on aeroelastic stability and response.
- Semi-aeroelastic hinge device modelling.

sep. 2019 – current Postdoctoral fellow

Sapienza University of Rome, Rome, IT

SLOWD H2020 project *Research activity on reduced order models for the integration of sloshing effects in the aeroelastic stability and response of wing structures.* (P.I. Prof. Franco Mastroddi)

nov. 2018 – aug. 2019 Research scholarships

Sapienza University of Rome & CNR-INM (Institute of Marine Engineering), Rome, IT

Visiting july 2019 Visiting scholar at University of Bristol, Bristol, UK.

Objectives *Experimental tests for the assessment of the role of non-dimensional parameters in vertical sloshing.*

EDUCATION

nov. 2015 – feb. 2019 Ph.D fellowship in Aerospace Engineering

Sapienza University of Rome & CNR-INM (Institute of Marine Engineering), Rome, IT

Thesis *Methodologies for virtual sensing applied to aeronautical and ship structures* (Supervisors PhD Daniele Dessi and Prof. Franco Mastroddi)

Project Involved on ONR-NICOP project denoted *Analysis of global and local slamming induced responses* (P. I. PhD Daniele Dessi)

Visiting mar. 2018 – jun. 2018 Visiting scholar at University of Michigan, Ann Arbor, MI, USA, *Naval Architecture and Marine Engineering Department*. (Supervisor Prof. Matthew Collette)

oct. 2013 – oct. 2015 Master Degree in Aeronautical Engineering

Sapienza University of Rome, Rome, IT

Graduation note: 110/110 cum laude

Thesis *A dynamically coupled model for maneuvering flexible aircraft* (Supervisor Prof. Franco Mastroddi)

Honors
- *Excellent graduate student* award from the Alumni Noi Sapienza Association – 2015
- Participation to the *Excellence program*
- Participation to *AIAA-PEGASUS student conference* – Valencia 2016

oct. 2010 – nov. 2013 Bachelor Degree in Aerospace Engineering

Sapienza University of Rome, Rome, IT

Graduation note: 110/110

Thesis *Bending modes in ionic polymer-metal composite induced by non homogeneous distribution of electric potential* (Supervisor Prof. Paola Nardinocchi)

sept. 2005 – jul. 2010 High School Diploma

Liceo Scientifico Edoardo Amaldi, Rome, IT

Graduation note: 90/100

OTHER PROFESSIONAL ACTIVITIES

feb. 2018 – jul. 2018

Technical consultant

MSC.Software, Rome, IT

Objectives *Teaching on aeroelastic flutter solutions concerning application cases of interest.* (P. I. Eng. Marco Calcagni)

nov. 2016 – feb. 2017

Technical consultant

University of Naples Federico II, Naples, IT

Objectives *Consulting for software development of a simplified modeling of wing structural layout for aeroelastic analyses to be used in the preliminary aircraft design.* (P. I. Prof. Fabrizio Nicolosi)

PERSONAL SKILLS

Mother tongue Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

PUBLICATIONS

[1] F. Saltari, D. Dessi, and F. Mastroddi. “Mechanical systems virtual sensing by proportional observer and multi-resolution analysis”. In: *Mechanical Systems and Signal Processing* 146 (2021).

[2] F. Mastroddi, F. Saltari, A. Traini, A. Barile, and F. Gambioli. “Sloshing roms for fluid-structure interactions in aerospace applications”. In: vol. 1 PartF. 2020.

[3] A. Castrichini, T. Wilson, F. Saltari, F. Mastroddi, N. Viceconti, and J.E. Cooper. “Aeroelastics flight dynamics coupling effects of the semi-aeroelastic hinge device”. In: *Journal of Aircraft* 57.2 (2020), p. 333.

[4] C. Conti, F. Saltari, F. Mastroddi, T. Wilson, and A. Castrichini. “Quasi Steady Aeroelastic Analysis of the Semi Aeroelastic Hinge Including Geometric Nonlinearities”. In: *Accepted for pubblication on Journal of Aircraft* (2021).

[5] M. Eugeni, F. Saltari, F. Mastroddi, and C. Riso. “Structural damping models for passive aeroelastic control”. In: 2019.

[6] F. Saltari, D. Dessi, E. Faiella, and F. Mastroddi. “Estimation of the deflection field over a ship structure model based on pointwise measurements”. In: 2019, pp. 285–292.

[7] B. Titurus, J.E. Cooper, F. Saltari, F. Mastroddi, and F. Gambioli. “Analysis of a sloshing beam experiment”. In: 2019.

[8] A. Castrichini, F. Saltari, N. Viceconti, T. Wilson, J.E. Cooper, and F. Mastroddi. “Aeroelastics flight dynamics coupling effects of the semi aeroelastic hinge device – IFASD 2019”. In: 2019.

[9] F. Mastroddi, F. Saltari, M. Wright, A.G. Malan, S. Simeone, and F. Gambioli. “Aircraft-fuel sloshing ROMs for aeroelastic analyses”. In: 2019.

[10] F. Saltari, D. Dessi, E. Faiella, and F. Mastroddi. “Load and deflection estimation of a fast catamaran towing-tank model via reduced order modeling and optimal natural observer”. In: 2018, pp. 3495–3509.

[11] F. Saltari, C. Riso, G. De Matteis, and F. Mastroddi. “Finite-element-based modeling for flight dynamics and aeroelasticity of flexible aircraft”. In: *Journal of Aircraft* 54.6 (2017), pp. 2350–2366.

[12] M. Eugeni, F. Saltari, G. Coppotelli, and D. Dessi. “A Method for the estimate of modal parameters of time-dependent aerospace structural systems using operational data”. In: 2017, pp. 78–81.

[13] E. Conti, F. Saltari, M. Eugeni, V. Camerini, and G. Coppotelli. “Modal parameter estimate of time-varying system using operational modal analysis based on hilbert transform”. In: vol. 2017-June. 2017.

[14] F. Saltari, F. Mastroddi, C. Riso, G. De Matteis, and S. Colaianni. “On the control of aeroelastic/flight dynamic integrated stability of maneuvering aircraft”. In: vol. 2017-June. 2017.

[15] D. Dessi, E. Faiella, F. Saltari, C. Pigna, C. Celli, T. Miliante, and E. Di Paolo. “Experimental analysis of the station keeping response of a double-barge float-over system with an elastically scaled physical model”. In: 2017, pp. 1175–1182.

[16] F. Saltari, A. Traini, F. Gambioli, and F. Mastroddi. “A linearized reduced-order model approach for sloshing to be used for aerospace design”. In: *Aerospace Science and Technology* 108 (2021), p. 106369.