



## Personal Info

Date of birth: 04/08/1988  
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**Stefano Ghelardi**

## Contacts



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## Education



- January 2014 - April 2017 **Ph.D. fellow in Naval Architecture and Marine Engineering** at University of Genoa (Italy).  
**Thesis title:** Numerical, experimental and analytical techniques for sails and rigging design - Fluid Structure Interaction (FSI) effects, material characterization and structural modelling.  
**Topic:** Numerical strongly-coupled FSI investigations on sails and rigging of sailing boats exploiting Computational Fluid Dynamics (**CFD**) RANSE and Finite Element (**FE**) software. Experimental tests in structure lab and wind tunnel were carried out respectively in order to assess sailclothes' mechanical properties and validating numerical FSI results. Winner of Ph.D. **Erasmus+** scholarship at Cranfield University from 10/2016 to 03/2017. Involved as FEA quality supervisor in REMS group project commissioned by Lloyd's Register in collaboration with Oxford University on fatigue assessments and design of 3-legged jacket structures for offshore wind turbines.
- March 2011 - March 2013 **M.Sc. in Naval Architecture and Pleasure Craft Engineering** at University of Genoa (IT), achieved with **110/110 and honours**.  
**Thesis title:** On the Effective Breadth concept for composite hull structures.  
 The final work concerned parametric investigations with FE models assessing the influence of geometric and material parameters on the Effective Breadth (EB), providing a new formula to calculate EB for composite materials structures.
- September 2007 - March 2011 **B.Sc. in Naval Architecture and Pleasure Craft Engineering** at University of Genoa (IT) achieved with **110/110**.  
**Thesis title:** Preliminary design of a catamaran for underwater diving with diesel-electric propulsion.

## Work experiences



- 2015 - Present Assistant lecturer in Ship Building 2 and Yacht Rigging courses at University of Genoa.
- September 2013 - February 2014 External collaborator at University of Genoa. Winner of public procedure n° 880/2013. Work, commissioned by Italian Navy, concerned structural design and FE structural assessments on a research vessel.
- March 2010 - June 2010 Trainee at GDTech s.n.c, Sant'Antonio street, Pisa, Italy. Subjects covered: CAD design, structural design, resistance and power prediction with non-viscous fluid software, trim and heeling checks.

## Professional expertise



### Principal skills and subjects

Numerical Fluid-Structure Interaction analyses; Aeroelasticity; Computational Fluid Dynamics; Sails Aerodynamics; Finite Element Analyses; Structural Dynamics, Fatigue and Buckling analyses; Mechanics of Composite Materials; Ship Structures; Naval Architecture; Sailing Yacht Rigging; CAD modelling; Interior and Exterior Boats Design; Rendering and picture/video editing.

Software	FEA	ADINA ●●●●	Abaqus ●●	Ansys mech.* ●	Nastran-Patran* ●	Sesam ●
	CFD	ADINA ●●●●	STAR-CCM+* ●●	Ansys CFX* ●	OpenFOAM** ●	Fluent ●
	CAD	Rhinoceros ●●●●	AutoCAD ●●	SolidWorks ●	MicroStation ●	SailCut ●
	Naval	MAXSURF ●●	Maestro (FE) ●			
	Graphics	Photoshop ●●●●	After Effects ●●●	Illustrator ●●●	3DS Max ●●	InDesign ●●
	Others	Office ●●●●	MATLAB ●●	Gnu Octave ●	LabView* ●	

\* Knowledge achieved through basic courses with certificates issued respectively by EngineSoft, MSCsoftware, CD-Adapco, National Instruments. \*\* Basic course held by WolfDynamics, Spin-off University of Genoa

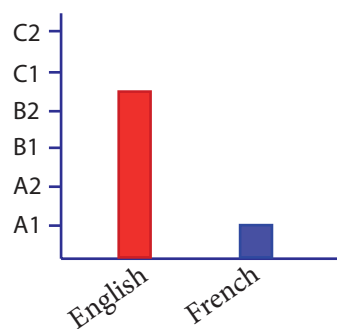
## Computer languages

Java ●	C++ ●
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where ●●●●● = proficient user, ● = basic user

## Personal skills

## Languages



Mother tongue: Italian

### Legend

A1/A2: Basic user  
B1/B2: Independent user  
C1/C2 Proficient user  
Common European Framework of Reference for Languages

## Soft skills

Proved abilities of work planning, problem solving and information managing have been further developed during the doctorate program. During this period of work, autonomy in taking professional decisions has been improved combined with a particular attention to details and a will of learning continuously. Preference for team work, with defined roles, in order to reach more significant results. Strong self-motivation and will to achieve goals.

## Further Info

### List of Publications

**A nonlinear monodimensional beam model for the dynamic analysis of the mast pumping phenomenon in sailing boats.** M. Lepidi, S. Ghelardi, C. M. Rizzo. AIMETA, XXII congress, 16 September, 2015, Genoa  
**Predicting and controlling the stiffness of masts and sails.** Ghelardi S., C. M. Rizzo. Nautech magazine, February 2015.  
**On the shear lag effective breadth concept for composite hull structures.** Ghelardi S., Gaiotti M., Rizzo C. M. Ship and Offshore Structures, 2014.  
<http://dx.doi.org/10.1080/17445302.2014.887172>

### Further Credits

**Enabled Naval Engineer** as a result of passing State examination.  
Slow Food Master of Wine degree, First and Second Level, March 2012 - April 2013.  
Slow Food Master of Beer degree - October 2012.  
Italian Federation of Photographic Arts (FIAF) member.  
Driving licence type B.

### General Info

Available to travel and spending long periods abroad.

### Personal data processing

I authorize the processing of personal data according to the Italian D.lgs. 196 of 30 June 2003.