




PERSONAL INFORMATION	Fabio Di Felice	
		
		
		
	https://orcid.org/0000-0001-6290-0264	
CURRENT POSITION SSD (if applicable)	Research Director at CNR-INM	
•Topic / experience\	Theoretical and experimental studies of hydrodynamics of marine propellers and rotors in general. Hydroacoustic and vortex dynamics. Experimental studies of cavitation and induced noise. Development of non-intrusive velocimetric experimental techniques (LDV, PIV, SPIV, Time-resolved PIV, LIF, Temperature Sensitive Paint-TSP). Fluid dynamics of rotors in design and off-design. Two-phase flows. Flow Visualization Techniques. Extraction of energy from marine currents. Development of experimental data sets for the validation of numerical codes.	
SCIENTIFIC / TECHNICAL QUALIFICATION (▪ H-index:	21 (scopus)- 29 (google scholar)
	▪ No. publications:	76 (scopus)
	▪ No. citations:	1676 (scopus) - 2760 (google scholar)
THEMATIC AREA KEYWORDS	▪ Energy transition:	Hydrodynamics, Propulsion, Renewable Energy, Sustainable marine transport
	▪ ORCID:	https://orcid.org/0000-0001-6290-0264

EDUCATION AND TRAINING

1991	PhD in Fluid Mechanics Rome University "La Sapienza"
1987	Master in Aerospace Engineering Rome University "La Sapienza"

WORK EXPERIENCE

since 2010 to present	Research Director
	CNR-INM (Institute of Marine Engineering National Research Council of Italy)
since 1995 to 2009	Senior Scientist
	INSEAN (Istituto Nazionale di Studi ed Esperienze di Architettura Navale)
since 1991to 1995	Aerodynamic test methods laboratory Manager
	CIRA (Centro Italiano Ricerche Aerospaziali)

since 1989 to 1991	Researcher
	CIRA (Centro Italiano Ricerche Aerospaziali)

MAIN ROLES AND RESPONSIBILITIES

From 2018-To 2021	Chairman of the International Towing Tank Association
From 2009-To 2017	Responsible of the Cavitation Facilities at CNR-INM
From 2004-To 2011	Propulsion and Cavitation Laboratories Director
From 2009-To 2017	Responsible of the CEIMM (Centro Esperienze Idrodinamiche Marina Militare)
From 2000-To 2004	Circulating Cavitation Channel Manager
From 1991-To 2004	CIRAAerodynamic Test Methods Lab Manager

TEACHING EXPERIENCE

From 2012 To 2024	Adjunct Professor at Rome University "La Sapienza", Master of Energy Engineering teaching Ocean Energy
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MAIN RESEARCH EXPERIENCE

2017-2020	<ul style="list-style-type: none"> <i>project title:</i> FLOWIS <i>financing institution:</i> European Defence Agency (EDA) <i>role:</i> INM Project Manager- Principal Investigator <i>total financing:</i> 450K€
2015-2017	<ul style="list-style-type: none"> <i>project title:</i> RESMARE <i>financing institution:</i> Regione Lazio L.R. 13/2008- FILAS-RU-2014-1073 <i>role:</i> INM Project Manager <i>total financing:</i> 1500K€
2006-2011	<ul style="list-style-type: none"> <i>project title:</i> HTA (Hydro Testing Alliance) <i>financing institution:</i> FP6-SUSTDEV <i>role:</i> INM Principal Investigator of JRP on Particle Image Velocimetry <i>total financing:</i> 150K€
2002-2006	<ul style="list-style-type: none"> <i>project title:</i> PIVNET2 <i>financing institution:</i> FP5-GROWTH <i>role:</i> INM Principal Investigator of JRP on Particle Image Velocimetry <i>total financing:</i> 150K€
2000-2003	<ul style="list-style-type: none"> <i>project title:</i> C-WAKE <i>financing institution:</i> EU FP5-GROWTH <i>role:</i> INSEAN Principal Investigator <i>total financing:</i> 131K€
2000-2003	<ul style="list-style-type: none"> <i>project title:</i> PIVNET <i>financing institution:</i> EU FP4-BRITE/EURAM <i>role:</i> INSEAN Principal Investigator <i>total financing:</i> 45K€

HONOURS, AWARDS, MEMBERSHIPS, OTHER QUALIFICATIONS

2024-present	Chairman of the Cooperative Project on Renewable Energy Devices within the Hydro-Testing Forum
2017-2021	Chairman of the International Towing Tank Conference Association
2014-2017	Chairman Working Group on "Future of ITTC" 28th ITTC
2014-2021	Southern Europe Representative in ITTC Executive committee for the 28th and 29th ITTC conference
2016	CNR-INSEAN Representative in Vessel for the Future-Maritime Research Association
2011-2022	Member pf the steering committee of the Hydrotesting Alliance Forum
2006-2008	Member of the "Special Committee on Wake Field" 24th ITTC Conference
2000-2002	Member of the "Special Committee on Cavitation Induced Pressure Fluctuation" 22ndh ITTC Conference
1995-present	Member of the Steering committee of the Italian association of laser Vibrometry and Velocimetry -AIVELA
1993-1995	CIRA Representative in the GARTEUR (Group for Aeronautical Research and Technology in Europe)

ADDITIONAL INFORMATION

Invited lectures and PhD Committee

- 2022 DELFT University-PhD Committee Dr. Constantin Jux
- 2020 DELFT University-PhD Committee Dr. Gunar Jacobi
- 2018 Invited Lecture Experimental methods and experimental techniques used in fluid mechanics and river hydraulics, 5th IAHR EUROPE Congress, Trento, 12-14 June 2018
- 2014 Institut P', CNRS- Université de Poitiers - ENSMA-PhD Committee Dr. Guillaume Gomit
- 2012 DELFT University-PhD Committee Dr. Daniele Ragni
- 2010 Invited Lecture Underwater SPIV Applications, MOERI (Dejong Korea)
- 2009 Invited Lecture 10 Years of PIV in Naval Hydrodynamics, Australian Maritime Collage, Launceston (Australia)
- 2009 Invited Lecture Developments and Applications of PIV in Naval Hydrodynamics, HTA-Summer School Gdansk (P)"
- 2008 Invited Lecture Underwater SPIV probe for towing tank applications, 25th ITTC Conference Fukuoka Japan
- 2005 Memorial University of Newfoundland, St. John's, Canada -PhD Committee Dr Said El Lababidy

Reviewer International journals

Physics of Fluids, Journal of Fluid Mechanics, Experiments in Fluids, Measurement Science and Technology, Journal of Aircraft (AIAA), Journal of Ship Research, Journal of Marine Science and Technology, Ocean Engineering, Journal of Waterway, Port, Coastal, and Ocean Engineering journal of Visualization, Renewable Energy

Publications

List of the most relevant publications in the last 5 years

Flow and cavity measurements in a super-cavitating propeller, Capone, Alessandro; Alves Pereira, Francisco; Di Felice, Fabio, 2024
DOI:10.3390/jmse12020243

Interaction between the helical vortices shed by contra-rotating propellers, Posa, Antonio; Capone, Alessandro; Alves Pereira, Francisco; Di Felice, Fabio; Broglia, Riccardo, 2024 DOI:10.1063/5.0207145

Experimental study of the turbulent flow in the wake of a horizontal axis tidal current turbine, Alves Pereira, Francisco; Di Felice, Fabio; Capone, Alessandro, 2023 DOI:10.1016/j.renene.2023.04.128

Impact of cavitation and inflow perturbation on the performance of a horizontal-axis tidal turbine, Capone, Alessandro; Di Felice, Fabio; Salvatore, Francesco, 2023 DOI: 10.1007/s40722-023-00296-9

Flow field and vortex interactions in the near wake of two counter-rotating propellers, Alves Pereira, Francisco; Capone, Alessandro; Di Felice, Fabio, 2021, DOI:10.1016/j.apor.2021.102918

On the flow field induced by two counter-rotating propellers at varying load conditions, Capone, Alessandro; Di Felice, Fabio; Alves Pereira, Francisco, 2021, DOI:10.1016/j.oceaneng.2020.108322

Flow-particle coupling in a channel flow laden with elongated particles: The role of aspect ratio, Capone, Alessandro; Di Felice, Fabio; Alves Pereira, Francisco, 2021, DOI:10.3390/jmse9121388

A shadowgraphy approach for the 3D Lagrangian description of bubbly flows, Alves Pereira, Francisco; Di Felice, Fabio; Miozzi, Massimo, 2020, DOI:10.1088/1361-6501/ab8fef

Deformation of Air Bubbles Near a Plunging Jet Using a Machine Learning Approach, Alves Pereira, Francisco; Di Felice, Fabio; Miozzi, Massimo, 2020, DOI:10.3390/app10113879

Experimental study of a vertical plunging jet by means of a volumetric shadowgraph technique, Alves Pereira, Francisco; Miozzi, Massimo; Di Felice, Fabio, 2020, DOI:10.1088/1742-6596/1589/1/012006

Taylor hypothesis applied to direct measurement of skin friction using data from Temperature Sensitive Paint, Miozzi, Massimo; Di Felice, Fabio, 2020, DOI:10.1016/j.expthermflusci.2019.109913

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV