# Olivier DOARÉ

Professor, ENSTA Paris, Institut Polytechnique de Paris

Course lecturer, École Polytechnique



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1998-2001 PhD in Mechanical Engineering at École Polytechnique, Titre: "Local and global instabilities in fluid-structure interactions" - Supervisor: Emmanuel de Langre, LadHyX, École Polytechnique.

2001-2002 Post-doc at INRA and École Polytechnique in Plant Biomechanics

2002-2003 Assistant professor in mechanics at Université Paris XI, Orsay

2003-2012 Assistant professor in mechanical engineering at ENSTA Paris

2010- Course lecturer at École Polytechnique

2012- Professor in mechanical engineering at ENSTA Paris

2012 HDR (French "Habilitation à diriger des Recherches")

### Research topics

- Electroacoustic transducers
- Fluid-structure ineraction theory, instabilities in fluid-structure interactions
- Electromechanical couplings and smart materials (piezoelectric materials, dielectric elastomers, shape-memory alloys)
- Instabilities control and energy harvesting
- Musical acoustics

### Publications H-index: 20 (Google Scholar, May, 2021)

See full list of publications at http://perso.ensta-paris.fr/~doare/files/doare\_publist.pdf

Google Scholar page: https://scholar.google.fr/citations?hl=fr&user=kzZmv90AAAAJ

• 41 articles in peer-reviewed international journals / 3 book chapters / 2 patents / 26 articles in international conference proceedings / 14 articles in french conference proceedings / 18 other communications in conferences

## Supervision

- Supervision of 12 PhD theses (2 currently running)
- Supervision of more than 30 internships at different academic levels
- 3 post-docs
- 2 research stays of invited PhD candidates

### Member of

- Société Française d'Acoustique (SFA)
- Association Française de Mécanique (AFM)
- Audio Engineering Society (AES)

### Research projects and funding

• 7 academic research grants or industrial research contracts between 2006 and 2020.

### **Organization**

- Local organizing committee of the Flow-Induced Vibration international conference, Paris 2004.
- Organization of the Marine Renewable Energies summer School, Brest 2012.
- Organization of the mini-symposium "Instabilities in Structural Mechanics and Fluid-Structure Interactions", at the ESMC conference, Bologna, 2018.
- Organization of the Flow-Induced Vibration international conference, Paris-Saclay, 2020 (conference postponed in 2021, due to the Covid-19 pandemy).

### **Teaching**

#### Lectures

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2004-2009 ENSTA Paris - 5th yr - "Fluid-structure interactions"
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2006-2010 ENSTA Paris - 4th yr - "Dynamics, waves and vibrations"

2009- ENSTA Paris - 4th yr - "Fluid-structure interactions"

2013-2019 Ecole Polytechnique, M2 REST - 5th yr - "Fluid-structure interactions in MRE"

2019- ENSTA Paris - 4th yr - "Acoustics in fluid media"

#### Classroom tutorials

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1999-2001 ENSTA Paris - 3rd yr - "Incompressible flows"
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1999-2001 ENSTA Paris - 4thyr - "Compressible flows"

2002-2003 Université Paris XI - 4th yr - "Numerical methods"

2003-2010 ENSTA Paris - 3rd yr - "Linear elasticity"

2003-2007 ENSTA Paris - 4th yr - "Plasticity"

2010-2014 ENSTA Paris - 4th yr - "Dynamics, waves and vibrations"

#### Experimental projects courses

 $2002\text{-}2003\,$  Université Paris XI - 1st yr - Experimental tutorials in mechanics

2003-2008 École Polytechnique - Experimental projects in acoustics

2008-2012 ENSTA - 4th yr - Experimental projects in mechanics

2010- - Ecole Polytechnique - 4th yr - Experimental projects in fluid mechanics

2010-2016 Ecole Polytechnique - 5th yr - Experimental projects in marine renewable energies

2010- Ecole Polytechnique - 4th yr - Experimental projects in acoustics and vibrations

2014-2019 - Ecole Polytechnique, Master REST - 5th yr - Experimental projects in marine renewable energies

2016-2020 Université Paris-Saclay, Master Acoustical Engineering - Experimental projects in acoustics

#### Teaching organization

• 2010-2019 In charge of the 5th year curriculum "Maritime engineering"

#### Summer schools

- July 2012 : Organization of the summer school "Renewable Marine Energies" in Brest, France and introductory lecture on flow energy harvesting.
- April 2017: 4h30 lecture in the summer school "Dynamic stability and bifurcation in nonconservative mechanics", Udine (CISM-AIMETA Advanced school).
- July 2017, 2019 : 2h lecture at the summer school "Fluid Dynamics of Sustainability and the Environment", Ecole Polytechnique.

### E-Learning

- "Fundamental of fluid-solid interactions" on the Coursera platform : responsible of the evaluation of students.
- "Fundamentals of waves and vibrations" on the Coursera platform.