

CV of David FABRE (English)

I. Personal situation

Personal data

Name : **David, Jean, Rémi FABRE**

Born : 26 mai 1975 in La Tronche (Isère, France)

Nationality : French.

Family situation : common life, 2 children.

Address : IMFT, allée du prof. Camille Soula, 31000 Toulouse, France

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Present position :

Maître de conférences (assistant professor) in Mechanics (since octobre 2003)

Université Paul Sabatier (UPS), UFR MIG, Département de mécanique.

Institut de Mécanique des Fluides de Toulouse (IMFT), groupe « INTERFACE ».

HDR habilitation : in progress. ([preliminary version](#))

Responsibilities

Manager of national project « ANR-OBLIC » (Objets Libres en Chute ; Free falling objects) (2009-2013)

Education manager of 2nd year undergraduate cursus in Mathematics and Mechanics (2009 -)

Member of scientific council of UFR MIG (faculty of mathematics and applications) (2009 -)

Member of the council of the library of mathematics and mechanics of UPS (2008 -)

Member of the specialist's commission (in charge of recruitments) of UPS, section 60 (2006 – 2009)

Formation

Jan. 2002 PhD at Université Pierre et Marie Curie (Paris) ;spéciality : mechanics.

Subject : “*Instability and unsteadyness of vortices ; application to aircraft wakes*”. Work done at ONERA (Office National d'Etudes et Recherches Aérospatiales), Meudon. Direction : P. Huerre (Polytechnique) / L. Jacquin (ONERA).

1998 DEA (Master's thesis) in fluid mechanics, Université Paris VI.

1998 General Engineering Degree at Ecole Nationale Supérieure de Techniques Avancées (ENSTA), Paris.

Option : naval hydrodynamics.

1993 Baccalauréat série C. Mention Très Bien.

Post-doc positions

2003 : Attaché temporaire d'enseignement et de recherches (ATER), UPS/IMFT, Toulouse.

2002 : Post-doc in ONERA, Meudon.

II. Research activities

Research contracts

2009-2013 : **National project « OBLIC » funded by National Research Agency (ANR).**

Fundamental research project aiming at studying and modelling the behaviour of freely falling or rising bodies within a viscous fluid.

Partners : IMFT, ONERA-Meudon, IMFS-Strasbourg, UC-Berkeley.

Total amount : 360 K€ (IMFT part : 194 K€).

Responsibilities : holder and general coordinator.

2006-2008 : National project « VORTEX » funded by National Research Agency (ANR).

Fundamental research project on waves and instabilities in vortices.

Coordinator : S. Le Dizès (IRPHE-Marseille). Partners : IRPHE , IMFT.

Total amount : 180 k€ (IMFT part : 64 K€).

Responsabilités au sein du projet : responsable administratif et scientifique IMFT.

2005-2008 : European project «FAR-WAKE»,

Fundamental research project on the dynamics of aircraft trailing wakes.

Coordinator : T. Leweke (IRPHE-Marseille). 17 European partners. IMFT funding : 100K€.

Responsibilities within the project : Coordinator of subtask 1.1.1 (vortex meandering) ; Administrative manager at IMFT.

2005-2007 : ACI contract « Emission de poussières » (dust emission)

Coordinator : J. Dodds. Partners : UTC-Compiègne, Ecole des Mines d'Albi, IMFT.

Direction of PhDs :

2010-2013 : Joël Tchoufag : « *Theoretical and numerical study of wake and path instabilities of falling objects* ». (co-advised with J. Magnaudet, IMFT)

2005-2009 : Franck Auguste : « *Path instabilities of a object freely falling within a viscous fluid* ». (co-advised with J. Magnaudet, IMFT). Defended on June 15, 2010.

2004-2008: Valerio De Felice : « *Numerical and experimental study of the onset of a vortex in a draining tank* » (thèse en co-tutelle Franco-Italienne, co-dirigée avec P. Luchini, Université de Salerno, and F. Charru, IMFT). Defended on march 23, 2008.

Direction of Post-docs :

2009-2010 : Pauline Assemat : « *Path instabilities of a moving object : global linear stability study* » (funded by ANR «OBLIC»).

2010 : Franck Auguste : « *Numerical developments of the simulation of freely falling objects* » (funded by ANR « OBLIC »)

2007 : Jérôme Fontane : « *Transient growth mechanisms in vortices* » (funded by ANR «VORTEX», co-directed with P. Brancher, IMFT).

Direction of internships :

Master's theses : 6

« Stages d'option de l'Ecole Polytechnique »: 2

summer internships : 2

[More details](#)

III. Scientific influence

Publications :

Refereed papers : 19 ; Chapters in collective books : 3 ; Invited conferences : 1 ; conferences : 27.

[Complete list](#)

Invitations abroad :

Università di Salerno (2007, 1 week), DTU-Copenhaguen (2006, 1 week, and 2008, 1 week), University of St Andrews (2008, 1 week)

Invitations of foreigner researchers :

Paolo Luchini (2006-2010, several months), E. Knobloch (2007-2010, several months), Flavio Giannetti (2008, week, and 2011, 1 month), Anders Andersen (2007, 1 week)

Seminars :

Abroad : Università di Salerno (2007), DTU-Copenhaguen (2006), Université de St Andrews (2008)

In France : Ladhyx-Polytechnique (2002), LMFA-Lyon (2002), LIMSI-Saclay (2003), IRPHE-Marseille (2003), ONERA-Meudon (2005), TREFLE-Bordeaux (2008), ESPCI-Paris (2009)

Editorial activities :

Reviews of papers for Journal of Fluid Mechanics, Physics of Fluids, European journal of Mechanics, Fluid dynamics researches, Experiments in fluids, Theoretical and computational fluid dynamics.

Others :

Organiser of the scientific seminars in the INTERFACE group of IMFT (2007 -)

Organiser of three «scientific days in the countryside» of the Interface group (2006,2008,2010).

IV. Teaching activities

Université Paul Sabatier : Undergraduate 2nd et 3rd years (L2-L3) and Master 1st year (M1).

192h / year, except in 2008/2009 (96h ; delegation CNRS) and in 2010-2011 (96h ; CRCT sabbatical)