Thierry DAUXOIS

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Date of birth	September 15th, 1967 in Toulouse (France)
Nationality	French
Position	CNRS Research Director (DRCE1)
Professional address	Laboratoire de Physique
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Education and Career

1985-1987	Studies in Toulouse
1987-1991	Student at ENS de Lyon
1990	Agrégation de Physique
1990-1992	PhD Thesis at the University of Dijon, supervisor M. Peyrard
1993	Scientific researcher for the national military service at ENS de Lyon, supervisor S. Fauve
1994	Appointment as CNRS Research Associate at ENS de Lyon (CR1 in 1998)
1999	Habilitation *Nonlinear localized waves: applications to condensed matter and hydrodynamics*
2006	Appointment as CNRS Research Director at ENS de Lyon (DR1 in 2012, DRCE1 2021)

Research Interests

Nonlinear dynamics and statistical mechanics. Dynamical systems and Chaos.

Solitary waves: creation, stability and applications.

Statistical mechanics and dynamics of systems with long-range interactions.

Waves in stratified fluids: theory and laboratory experiments.

Administrative and Research Appointments

2005-2011	Head of Master 2 in Physics at ENS de Lyon (graduate studies)
2006-2009	Director of GDR Phenix (French Research Society for Nonlinear and Statistical Physics)
2010-2012	President of CNRS Theoretical Physics Board (CoNRS Section 02)
2012-2020	Director of the Laboratoire de Physique (∼160 people) at ENS de Lyon
2020-2021	Vice-President for Research of ENS de Lyon (27 laboratories : 21 UMR, 5 UAR, 1 UR)
2021-	Director of the Physics Institute of CNRS (80 laboratories)

Indicators

122 Articles, 2 Books and 7 edited books.

71 Invited Conferences and 9 Lectures series in Summer Schools.

18 International conferences organized (14 as principal organizer, including Statphys26 with 1250 participants).

58 PhD committees (25 as referee)+ 19 HDR committees (13 as referee).

13 Post-docs and 23 Masters internships.

12 PhD Students: J. Barré (2003), L. Gostiaux (2006), S. Paulin (2007), M. Mercier (2010), G. Bordes (2012), C. Nardini (2013), B. Bourget (2014), C. Brouzet (2016), G. Pillet (2018), G. Davis (2019), P. Husseini (2019), C. Pacary (2023).

Selected Recent Publications (full list on `http://perso.ens-lyon.fr/thierry.dauxois/`).

G. Davis, T. Jamin, J. Deleuze, S. Joubaud, T. Dauxois, Physical Review Letters 124, 204502 (2020) - Cascade of resonances to achieve internal wave turbulence.

T. Dauxois, S. Joubaud, P. Odier, A. Venaille, Annual Review of Fluid Mechanics 50, 131-156 (2018) - Instabilities of internal wave beams.

C. Brouzet, E.V. Ermanyuk, S. Joubaud, I. Sibgatullin, T. Dauxois, Europhysics Letters 113, 44001 (2016). Energy cascade in internal wave attractors.

J-B Caussin, A. Solon, H. Chaté, T. Dauxois, J. Tailleur, V. Vitelli, D. Bartolo, Physical Review Letters 112, 148102 (2014). *Emergent spatial structures in flocking models: a dynamical system insight.*

M. J. Mercier, L. Gostiaux, K. Helfrich, J. Sommeria, S. Viboud, H. Didelle, S. J. Ghaemsaidi, T. Dauxois, T. Peacock, Geophysical Research Letters 40, 5704 (2013). *Large-scale laboratory modeling of M2 internal tide generation at the Luzon Strait.*

H. Scolan, E. Ermanyuk, T. Dauxois, Physical Review Letters 110, 234501 (2013).
Nonlinear fate of internal waves attractors.

Books

A. Campa, T. Dauxois, D. Fanelli, S. Ruffo, *Physics of Long-Range Interacting Systems*, 410pp, Oxford University Press (2014).

T. Dauxois, M. Peyrard, *Physics of Solitons*, 420pp, Cambridge University Press (2006).

Selected Research Grants

ANR Projects: TOPOGI3D (2005) 330k€ with LEGI & IMFT. PIWO (2009) 400k€ with LEGI & POC; LORIS (2010) 400k€ with Ruffo (PI); ONLITUR (2011) 300k€ with FAST; DisET (2017) 600k€ with FAST, NÉEL & LMFA; CRYOGRAD (2018) 300k€ with Salort (PI).
MIT-France: (2008) & (2010) Seed Funds with T. Peacock.
ACI-JC: (2001) 600kF & **Labex iMUST:** WDT (2016) 120k€ with LMFA.
PICS-CNRS: 2011-13 with MIT (USA); 2016-18 with Tbilisi (Georgia)
Simons Found.: Wave Turbulence (2019) 900€ with UMPA.

Commission of Trust

Member of AERES committees: INLN-Nice (2011), LPS-ENS Paris (2012), LPTMC Paris (2013).
President of HCERES committees: LPT-Orsay (2013), CPT-Marseille (2017), LPS-ENS Paris (2017), Département de Physique de l'ENS Paris (2018), MSC Paris (2018), LPTMS Orsay (2018).
Member of the research committee for the heads of INLN-Nice (2011), FRIF-Paris (2012).
Member of the evaluation committee of National Institute for Theoretical Physics of South-Africa (2017).
Member of the C3 Commission on Statistical Physics of the IUPAP (2018-).
Member of the CA of Les Houches School (2010-2019) & COS of Institut Scientifique de Cargèse (2019-21).
Member of the Editorial Board of J. Phys. A (2016-2022) & J. Stat. Mech. (2019-)

Organization of Workshops and Summer Schools (Selected)

Systems with Long-Range Interactions (2002), Les Houches workshop with Arimondo & Ruffo (75 part.).
Nonlinear Physics (2005), Institut Henri Poincaré, with MacKay & Tsironis (60 part.)
Long-Range Interacting Systems (2008), Les Houches Summer School, with S. Ruffo (80 part.).
Topographical Internal Waves (2010), Cargèse School with Staquet & Eiff (65 part.).
Geophysical and Astrophysical Internal Waves (2011), Les Houches workshop, with Peacock (75 part.).
International School on Nonlinear Dynamics, Yaoundé (2011), with Kofane, Nguenang, Marsili (95 part.).
Statistical Mechanics of Self-Gravitating Particles (2012), Les Treilles, with MacKay & Pomeau (21 part.).
Nonlinear Effects in Internal Waves (2014), Cornell, with Diamessis & Wunsch (65 part.).
STATPHYS26 (2016), Lyon, with Alastuey, Holdsworth, Peyrard & Taberlet (1250 participants).
Environmental Fluid Dynamics: Confronting Grand Challenges (2019) Les Houches with Peacock (75 part)