

David HURTHUR, 52 years, married, 2 children

Lab. of Geophys. & Indust. Flows (LEGI), CNRS, Univ. Grenoble Alpes, France

<http://www.legi.grenoble-inp.fr/web/spip.php?auteur45&lang=fr>

University degrees

- 2014 **HDR** (Research Habilitation), Environmental Fluid Mechanics, University of Grenoble Alpes.
 2001 **PhD** (Dr. ès Sciences) at *Swiss Federal Institute of Technology, Lausanne (EPFL)*. Director: Profs. W.-H. Graf & U. Lemmin.
 1995 **Master of Science & Eng.** Mechanical Eng. & Elect. Eng., *Louis Pasteur Univ. of Strasbourg & U. of Appl. Sc. Offenburg*.

Titles & employment

- 2016 **Directeur de Recherche** at CNRS, *Lab. of Geophysical and Industrial Flows (LEGI), Univ. Grenoble Alpes*.
 2003 **Chargé de Recherche** at CNRS, *Laboratory of Geophysical and Industrial Flows (LEGI), CNRS, Univ. Grenoble Alpes*.
 2001 **Post-doctoral Scholar** at *Woods Hole Oceanographic Institution, Massachusetts, USA*.
 1997 **Research & Teaching Assistant**. *Swiss Federal Institute of Technology, Lausanne (EPFL) Switzerland*.

Distinctions and Awards

- 2001 **IAHR John F. Kennedy award** for best PhD paper and presentation, *IAHR world congress, Beijing, China*.
 2001 **WHOI annual post-doct award** in ocean science and engineering, *Woods Hole Oceanographic Institution, USA*.

Collective & teaching duties

Teamleader of MEIGE group at LEGI (14 permanent staff, ~29 in total) jan 2021 to dec 2024.
Member of Board of the LEGI laboratory (~100 staff, as representative for Professors & Research Directors) jan 2018 to dec 2024.
Member of Board of Doctoral School STEP of U. Grenoble-Alpes, since 2018.
Associate Editor at American Geophysical Union for journal *Water Resources Research*. 2007-2017.
Associate Editor at the Int. Assoc. of Hydro-environment Res. for *Journal of Hydraulic Research*. 2014-2017.
 In charge of master II course **Flow Measurement Science**, intern. master in Environmental Fluid Mechanics, U. Grenoble Alpes, since 2011.

Journal & proceeding publications (H-factor: 23 on WOS, 28 on Google Scholar)

48 peer-reviewed journal articles at <https://scholar.google.com/citations?user=xqaUoEIAAAAJ&hl=fr&oi=ao>
 or OrCID <https://orcid.org/0000-0002-7667-1826>

50 reviewed conference articles at IAHR, ICCE, Euromech, ISEH, ASA conference, ISUD, Coastal Sediments, Coastal Dynamics, River Flows, RCEM, AGU Fall Meeting, RCEM, ECUA, UAM, INTERCOH.

Keynote and Invited Presentations

13. **Hurthur D.** (2024). ANR project 2-phase SEDEXP. Invited speaker as Coordinator of ANR project 2phase-SEDEXP at the Kick-Off Meeting of accepted ANR 2023 projects.
12. **Hurthur D.** (2021). The ANR project MESURE. Invited speaker as Coordinator of ANR project MESURE at the public restitution seminar. Grenoble, France.
11. **Hurthur D.** (2019). Developments in hydroacoustics for boundary layer flow & sediment transport processes. Invited speaker as Taskleader of JRA-COMPLEX at the closing Hydralab+ conference. Bucharest, Roumania.
10. **Hurthur D.** (2018). Acoustic High-Resolution measurements of Boundary Layer sediment transport processes in geophysical wave and current driven flows. Invited Lecture at annual foresight study meeting "Voir la mécanique de l'invisible", Institut de Mécanique des Fluides de Toulouse, France.
9. **Hurthur D.** (2017). ANR project MESURE. Invited speaker as Coordinator of ANR project MESURE at the Kick-Off Meeting of accepted ANR 2016 projects. Paris.
8. Thorne P.D. and **Hurthur D.** (2017). Perspectives of ongoing acoustic developments for measuring sediment dynamics. Invited Presentation at Acoustics'17 international conference of the American Society of Acoustics. Boston, USA.
7. **Hurthur D.** (2016). On the use of underwater acoustic scattering in coastal sediment transport physics". Invited Presentation at International Workshop on Turbulent mixing and sediment transport in the ocean. Sun Yat-Sen University, China.
6. **Hurthur D.** (2015). On the use of ultrasound scattering for sediment transport physics in geophysical flows. Invited Lecture at summer school « Septième Ecole Interdisciplinaire de Rennes sur les systèmes complexes en Environnement » Géosciences Rennes, France.
5. **Hurthur D.** (2014). Underwater acoustic scattering and its application to sediment transport physics in coastal and river flows. Keynote Lecture at the 9th Intern. Symposium on Ultrasonic Doppler Methods. University of Strasbourg, France.
4. **Hurthur D.** (2014). High-Resolution Acoustic flow instrumentation within Hydralab IV-WISE project. Invited speaker at the closing Hydralab IV conference. Lisbon, Portugal.
3. Thorne P.D. and **Hurthur D.** (2013). High-Resolution Acoustic Concentration and Velocity Profiling. Keynote lecture at the *Intern. Workshop on acoustic and seismic monitoring of bedload and mass movements*. ETH Zürich, Switzerland.
2. **Hurthur D.** (2010). Diffusion acoustique de particules en suspension et application à l'étude de processus hydro-sédimentaires. Main invited lecture at the annual workshop of the GDR TRANSNAT. EDF-LNH, Chatou, France.
1. **Hurthur D.** (2009). Measurement of near-bed turbulence and sediment dynamics using ultrasound scattering theory. Invited lecture at the National TELFORD Institute workshop on *Advances in Flow, Density & Sediment Measurement Techniques in the Laboratory & the Field*. University of Dundee. United Kingdom.

Research valorisation

Software HYDRAC-2020-Hydroacoustic inversion Software-under CeCILL-B free software license agreement at CNRS.

UB-Lab 2C/3C instrument. 2020, release of industrial version of ACVP flow instrument by the french UBERTONE company (project ANR MESURE).

European Patent n°FR0202187 « Ultrasonic velocity measurement process and system for liquids in pipes and channels ». University Louis Pasteur of Strasbourg, inventors : O. Scrivener, **D. Hurthur**, S. Fischer, B. Schwaller, P. Schmitt.

Research Project management 2018-2024

Before 2018: participation to 7 national and 2 european (EC-funded) projects as PI, co-PI, taskleader and participant

2015-2019	European Commission H2020 Hydralab+ project, Principal Investigator , 9M€, 12 academic & 8 industrial partners.
2017-2020	ANR Astrid Maturation MESURE, Coordinator , 457K€, 4 academic & 2 industrial partners.
2018-2023	ANR SHEET-FLOW, Taskleader , 190K€, 4 academic partners.
2021-2025	ANR WEST, Advisory Board member , 190K€, 4 academic partners.
2024-2028	ANR 2Φ-SEDEXP french-swiss project with EPFL (Dr. G. De Cesare), Coordinator , 885K€, 3 academic partners.

Research staff management

Postdoctoral fellows

2006-2008	Co-advisor of E. Mignot , GINP Postdoc at LEGI.
2012-2013	Advisor of F.X. Chassagneux , ENSE3 Postdoc at LEGI.
2015-2016	Advisor of T. Revil-Baudard , Hydralab+ Postdoc at LEGI.
2012-2016	Co-advisor of D. van der A , SINBAD Postdoc at U. Aberdeen.
2016-2018	Co-advisor of S. Naqshband , Postdoc at U. Wageningen.
2017-2018	Co-advisor of J. van der Zanden , Postdoc, U. of Twente.
2016-2020	Advisor of G. Fromant , ANR-MESURE Postdoc at LEGI.
2024-2024	Advisor of M. De Vet , France-Canada Excellence Postdoc fellowship at LEGI.
2024-2025	Co-advisor of M. Kumar-Sharma , ANR SEDEXP Postdoc at LEGI.

PhD students

2003-2007	Advisor of M. Bricault (with Prof. E. Bathélemy), U. Grenoble-Alpes.
2009-2012	Advisor of S. Moore (with Prof. J. Chauchat), U. Grenoble-Alpes.
2010-2013	Advisor of F.X. Chassagneux , U. Grenoble-Alpes.
2011-2015	Co-advisor of S. Naqshband (with Prof. J. Ribberink), U. of Twente.
2018-2019	Advisor of A. Mathieu (with Prof. J. Chauchat), U. Grenoble-Alpes.
2019-2022	Advisor of H. Guta (with Prof. J. Chauchat), U. Grenoble-Alpes.
2019-2023	Co-advisor of F. Grossmann (with Prof. J. Alsina), UPC-Barcelona.
2024-...	Advisor of O. Yon-Campaner , U. Grenoble-Alpes.
2025-...	Advisor of C. Reymond (with Dr. G. De Cesare), U. Grenoble-Alpes / EPFL.

Master students (2019-2024)

2019	Advisor of M. Mignot , Master Ocean, Atmosphere, Climate & Earth Observations, Sorbonne U.
2020	Advisor of A. Talukdar , Master in Environmental Fluid Mechanics, U. Grenoble-Alpes.
2021	Advisor of H. Guta , Master in Civil & Hydraulic Engineering, ENSE3, Grenoble-INP.
2023	Co-advisor of N. Fritsch , Master Oceanic Engineering, ENSTA-brestagne.

PhD, Habilitation, Recruitment & Evaluation committees

Member of PhD committees:

S. Fischer (2006): Examinateur, Univ. Louis Pasteur, Strasbourg, France.
M. Bricault (2006): Co-directeur, Inst. Nation. Polytechnique de Grenoble, France.
A. Hauet (2007): Examinateur, University Joseph Fourier, Grenoble.
I. Albayrak (2008): Examinateur, EPFL, Lausanne, Switzerland.
F. Abda (2009): Examinateur, Univ. Louis Pasteur, Strasbourg, France.
E. Florens (2010): Examinateur, Université Paul Sabatier, Toulouse, France.
S.A. Moore (2011): Directeur de these, Université de Grenoble, France.
F.X. Chassagneux (2012): Directeur de these, Université de Grenoble, France.
T. Geay (2013): Examinateur, Université de Grenoble, France.
N. Hémmerlé (2014): Rapporteur, Ecole Centrale de Nantes, France.
T. Revil-Baudard (2014): Membre du jury, Université de Grenoble, France.
S. Naqshband (2014): Co-encadrant, University of Twente, The Netherlands.
M. Rouzès (2015): Rapporteur, Université Paul Sabatier, Toulouse, France.
G. Fromant (2015): Rapporteur, Université de Bretagne Occidentale, France.
D. Raus (2018): Rapporteur, Université de Toulouse (INP Toulouse), France.
A. Vergne (2018): Président de jury, Université Grenoble Alpes, France.
L. Chagot (2019): Rapporteur, Université de Toulouse (INP Toulouse), France.
L. Gond (2023): Rapporteur, Université de Lyon (INSA Lyon), France.

Member of HDR committees:

N. Sénéchal (2011), Rapporteur, Université de Bordeaux, France.
A. Pallarès (2021), Rapporteur, Université de Strasbourg, France.
E. Negretti (2023), Président de jury, Université Grenoble Alpes, France.

Member of HCERES evaluation Committees since 2024:

HCERES Expert 2024, for evaluation of LHSV laboratory, EDF-ENPC, Paris, France.
HCERES Expert 2025, for evaluation of IMFT laboratory, U. of Toulouse / CNRS, France.

Member of recruitment committees for university professors & permanent staff:

Katho. University (KU) Leuven, Rapporteur externe, 2017.
University Paul Sabatier, Rapporteur externe, Toulouse, IMFT, 2022.
University of Strasbourg, Rapporteur externe, Icube, 2022.
University Paul Sabatier, Rapporteur externe, Toulouse, IMFT, 2023.
University Grenoble Alpes (Tech. engineer position), LEGI member, Grenoble, 2025.

scientific conferences, symposium, public open-science fairs and events

Organizer of Hydralab+ Event 2019 on "Adaptation to climate change", Grenoble (102 participants worldwide).

Organizer of Public Restitution Seminar of ANR MESURE project, March 10 & 11 2020, Grenoble (32 participants worldwide).

Organizer of THESIS2022 conference, Ecole de Physique des Houches, June 5th to 10th 2022 (61 participants worldwide).

Organizer of upcoming ISUD 2026 at Ecole de Physique des Houches, 4th to 7th May 2026 (about 60 participants worldwide).

Scientific conference committees: River Flows, ISUD, IAHR World Congress, ISEH, ISE, ICCE, SHF-Hydrometry, CFM.

Participation to "**Fête de la Science**" and **Science Open-Days** events since 2014 for Univ. Grenoble Alpes, Grenoble INP and CNRS Grenoble.