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[Google Scholar/hugo.ulloa](https://scholar.google.com/citations?user=hugo.ulloa)

[Researchgate/hugo.ulloa](https://www.researchgate.net/profile/Hugo-Ulloa)

Education

- ◇ 10/2015 **Ph.D.** Program in Fluid Dynamics, Universidad de Chile (UCHile)
- ◇ 03/2011 **Civil Engineer, Hydraulic mention** (First-Class Honour), UChile
- ◇ 07/2010 **Engineering Sciences, B.Sc.** UChile
- ◇ 07/2010 **Geophysics, B.Sc.** UChile

Research Appointments

- ◇ 07/2021-Present: **Assistant Professor**, Earth and Environmental Science Department, University of Pennsylvania, PA, USA
- ◇ 09/2021-Present: **Guest Scientist**, Limnology Center, École Polytechnique Fédérale de Lausanne (EPFL), CH
- ◇ 02/2017-08-2021: **First Assistant, Scientist** (80% Research, 20% Mentoring, Teaching, Administration), Aquatic Physics Laboratory (APHYS), École Polytechnique Fédérale de Lausanne (EPFL), CH
- ◇ 11/2015-02/2017: **Postdoctoral Scholar** (90% Research, 10% Mentoring, Administration), Environmental Fluid Dynamics Laboratory (EFD Lab), Mechanical and Aerospace Engineering (MAE)/Scripps Institution of Oceanography (SIO), University of California San Diego (UCSD), California, USA
- ◇ 01-07/2013 : **Visiting Researcher** (100% Research), SIO, UCSD, California, USA
- ◇ 07/2011-10/2015: **Ph.D. Fellow** (80% Research, 20% Teaching), Program in Fluid Dynamics UChile, Chile
- ◇ 11/2008-08/2010: **Research Assistant** (100% Research), Environmental Flows Laboratory, UChile, Chile

Major research areas

- ◇ **Fundamental research - Geophysical and environmental fluid dynamics:** • Energy and mixing in stratified flows • Buoyancy-driven flows • Permeable media flows • Degeneration of rotating internal waves • Hydrodynamic resonance in enclosed basins.
- ◇ **Applied research - Transport processes in natural waters:** • Thermally-driven circulation in open and ice-covered lakes • Wind-driven circulation in stratified lakes • Exchange flows in coastal ocean and lakes.

Teaching

- ◇ **Courses** (full list upon request): Limnology - Lakes modelling module (Lecturer (L): 2018-2021) • Numerical Analysis (L: 2014-2015) • Numerical Methods in Fluid Dynamics (Teaching Assistant (TA): 2014) • Environmental Fluid Dynamics (TA: 2010, 2014-2015) • Fluid Mechanics (TA: 2008-2010) • Open channel flows (TA: 2007-2010).

Other academic activities

- ◇ **Peer Reviewer** of: • Journal of Fluid Mechanics • Limnology and Oceanography • Aquatic Sciences • Environmental Fluid Mechanics • Water Resources Research • Nonlinear Processes in Geophysics • Journal of Great Lake Research • Journal of Atmospheric and Oceanic Technology • Journal of Advances in Modeling Earth Systems • Journal of EcoHydraulics.
- ◇ **Memberships:** Regular member of AGU, EGU, IAHR, EUROMECH

Distinctions and Awards

- ◇ CONICYT Chilean NSF Grant for Ph.D. Thesis, Grant 21110069, 2013-2015.
- ◇ Postgraduate Department Scholarships, Universidad de Chile: Research Internship Abroad, 2012.
- ◇ CONICYT Chilean NSF Doctoral Scholarship, Grant 21110069: Ph.D., 2011-2015.
- ◇ 'First-Class Honour' in Civil Engineering, Universidad de Chile 2011