Curriculum Vitae

Hugo N. Ulloa, Ph.D.

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Education

- \diamond 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
- $\diamond~07/2010$ Geophysics, B.Sc. UChile

Academic Appointments

- ◊ 10/2021-Present: Assistant Professor, Earth and Environmental Science Department, University of Pennsylvania
- ◊ 09/2021-09/2022: Guest Scientist, Limnology Center, École Polytechnique Fédérale de Lausanne (EPFL)
- ◊ 02/2017-08-2021: First Assistant, Scientist , Aquatic Physics Laboratory (APHYS), EPFL
- 11/2015-02/2017: Postdoctoral Scholar, Environmental Fluid Dynamics Lab (EFD Lab), Mechanical and Aerospace Engineering (MAE)/Scripps Institution of Oceanography (SIO), University of California San Diego (UCSD), California

Previous Research Experience

- $\diamond~01\text{-}07/2013$: Visiting Scholar , SIO, UCSD, California. Advisor: Dr Kraig Winters
- ◊ 07/2011-10/2015: Ph.D. Fellow, Program in Fluid Dynamics UChile. Advisor: Dr Yarko Niño
- ◊ 11/2008-08/2010: Undergraduate Research Assistant, Environmental Flows Lab, UChile. Advisor: Dr Yarko Niño
- ◊ 09/2007-10/2007: Undergraduate Research Assistant, Fachrichtung Geophysik, Free Universitat Berlin. Advisor: Dr Heinrich Brasse
- ◊ 07/2006-02/2007- Undergraduate Research Assistant, Seismology Group, UChile. Advisor: Dr Denis Legrand

Research areas

- ◊ Geophysical and environmental fluid dynamics: Multiphase flows Biogenic-driven fluid flows Permeable media flows • Energy and mixing in stratified flows • Buoyancy-driven flows• Degeneration of rotating internal waves
 - Wind-driven hydrodynamic resonance in enclosed basins Thermally-driven circulation in open and ice-covered lakes
 - Exchange flows in coastal ocean and lakes.

Teaching

 ◊ Introduction to Hydrology (Fall semester) • Environmental Fluid Dynamics (Spring Semester) • Independent Studies in Geophysical and Environmental Fluid Dynamics (Both semesters)

Distinctions and Awards

- ♦ International Invited Speaker: The Japan Society of Mechanical Engineering (2023)
- $\diamond\,$ The Most Valuable Professor by student athletes 2022 at the University of Pennsylvania
- ◊ 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