TOMÁS L. CHOR

Personal page: tomchor.github.io
Department of Atmospheric and Oceanic Sciences, UCLA
tomaschor@ucla.edu

ABOUT ME

I am a PhD candidate at UCLA investigating material transport in the Oceanic Mixed Layer who is very interested in small scale geophysical turbulence in general (both in the ocean and atmosphere) and numerical modelling. I'm also enthusiastic about programming and open-source initiatives.

EDUCATION

Ph.D. Atmospheric and Oceanic Sciences
University of California, Los Angeles — Expected in 2020
Investigating material transport in geophysical boundary layers

M.Sc. Atmospheric and Oceanic Sciences
University of California, Los Angeles — December 2018
Investigated buoyant material transport in oceanic boundary layers

M.Sc. Environmental Engineering
Federal University of Paraná, Curitiba — March 2014
Investigated analytical and numerical aspects of aquifer discharge

B.Sc. Environmental Engineering
Federal University of Paraná, Curitiba — January 2012

RELEVANT PROFESSIONAL EXPERIENCE

Climatempo — June 2014 — July 2015
Researcher — *São Paulo, Brazil*

· Ran dispersion models and forecasted wind power supply for the wind energy industry

Federal University of Paraná — December 2010 — April 2014
Researcher — *Curitiba, Brazil*

· Meteorological and micrometeorological field measurements as well as data processing

AWARDS AND SCHOLARSHIPS

Richard P. Turco exceptional research award — November 2019

· Awarded by UCLA's department of Atmospheric and Oceanic Sciences

Research assistantship — January 2017 — Present

· Awarded by the Gulf Of Mexico Research Initiative

Research scholarship — August 2015 — August 2016

· Awarded by the National Institute for Amazonian Research and the Max Planck Institute for Chemistry to work on the Amazonian Tall Tower Observatory project

Odelar Leite Linhares award — October 2014

· Awarded by the Brazilian Society for Applied and Computational Mathematics for best Masters thesis in Applied mathematics in Brazil.

CAPES scholarship for masters March 2012 — March 2014

· Awarded by the Coordination for the Improvement of Higher Education Personnel.

PUBLICATIONS

Selected journal publications

[1] **Chor, Tomas**, James McWilliams, and Marcelo Chamecki. "Diffusive-nondiffusive flux decompositions in atmospheric boundary layers". In: *Journal of the Atmospheric Sciences* (2020). In press.

[2] Marcelo Chamecki, **Tomas Chor**, Di Yang, and Charles Meneveau. "Material transport in the ocean mixed layer: recent developments enabled by large eddy simulations". In: *Reviews of Geophysics* (2019). DOI: 10.1029/2019RG000655.

[3] **Chor, Tomas**, Ailín Ruiz de Zárate, and Nelson L. Dias. "A Generalized Series Solution for the Boussinesq Equation With Constant Boundary Conditions". In: *Water Resources Research* 55.4 (2019), pp. 3567–3575. DOI: 10.1029/2018WR024154.

[4] Cléo Quaresma Dias-Júnior, ..., **Tomas Chor**, and Antonio Manzi. "Is There a Classical Inertial Sublayer Over the Amazon Forest?" In: *Geophysical Research Letters* 46.10 (2019), pp. 5614–5622. DOI: 10.1029/2019GL083237.

[5] **Chor, Tomas**, Di Yang, Charles Meneveau, and Marcelo Chamecki. "A Turbulence Velocity Scale for Predicting the Fate of Buoyant Materials in the Oceanic Mixed Layer". In: *Geophysical Research Letters* 45.21 (2018), pp. 11, 817–11, 826. DOI: 10.1029/2018GL080296.

[6] **Chor, Tomás**, Di Yang, Charles Meneveau, and Marcelo Chamecki. "Preferential concentration of noninertial buoyant particles in the ocean mixed layer under free convection". In: *Phys. Rev. Fluids* 3 (2018), p. 064501. DOI: 10.1103/PhysRevFluids.3.064501.

[7] **Tomás L. Chor**, Nelson L. Dias, Alessandro Araújo, and ... "Flux-variance and flux-gradient relationships in the roughness sublayer over the Amazon forest". In: *Agricultural and Forest Meteorology* 239 (2017), pp. 213–222. ISSN: 0168-1923. DOI: http://dx.doi.org/10.1016/j.agrformet.2017.03.009.

[8] **Chor, Tomas L.** and N. L. Dias. "Technical Note: A simple generalization of the Brutsaert and Nieber analysis". In: *Hydrology and Earth System Sciences* 19.6 (2015), pp. 2755–2761. DOI: 10.5194/hess-19-2755-2015.

[9] Nelson L. Dias, **Chor, Tomás L.**, and Ailín Ruiz de Zárate. "A semianalytical solution for the Boussinesq equation with nonhomogeneous constant boundary conditions". In: *Water Resources Research* 50.8 (2014), pp. 6549–6556. ISSN: 1944-7973. DOI: 10.1002/2014WR015437.

[10] **Chor, Tomas**, N. L. Dias, and Ailín Ruiz de Zárate. "An exact series and improved numerical and approximate solutions for the Boussinesq equation". In: *Water Resources Research* 49.11 (2013), pp. 7380–7387. DOI: 10.1002/wrcr.20543.

RELEVANT TEACHING, OUTREACH AND MENTORSHIP

Author of TED-Ed video on Turbulence April 2019

· Conceived and wrote script for TED-Ed video with the goal or popularizing the topic of Turbulence

Student Recruitment Chair Fall 2017 to Fall 2018
XEP, UCLA

· Organized recruitment efforts and events for incoming graduate students

University teaching experience 2013

· Several applied math classes for up to 45 third-year engineering students at the Federal University of Paraná.

OTHER RELEVANT SKILLS

Software developer

· Creator and developer of Pymicra, the Python tool for Micrometeorological Analyses, among other python packages.

Programming languages

· Python, Fortran, Julia, Bash