Elizabeth Yankovsky

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EDUCATION

Princeton University, Princeton, NJ
Ph.D., Atmospheric and Oceanic Sciences, *2015 – present*
Completed Master's degree in Spring, 2017.
Advisor: Dr. Sonya Legg

University of South Carolina Honors College, Columbia, SC
B.S., Physics and Geophysics, magna cum laude, *2011-2015*
Advisors: Drs. Camelia Knapp and Darrell Terry

RESEARCH EXPERIENCE

NOAA Geophysical Fluid Dynamics Laboratory, Princeton University
Graduate Research Assistant, Ocean & Ice Processes Group, *2015-present*
Topic: Dense shelf overflows in the Arctic Ocean; instability dynamics.
Advisors: Drs. Sonya Legg, Robert Hallberg, Rong Zhang

Geophysical Exploration Laboratory, University of South Carolina
Undergraduate Research Assistant, *2012-2015*
Title: "Methane Hydrates and Cellular Convection in the Central Aleutian Basin", Advisors: Drs. Camelia Knapp, Darrell Terry

Oregon State University, College of Earth, Ocean, & Atmospheric Sciences, NSF-REU program intern, *June-August 2014*
Title: "Response of the Length and Stratification of the North River Estuary to Changes in Forcing", Advisor: Dr. James Lerczak

Rutgers University, Department of Marine and Coastal Sciences, NSF-REU program intern, *June-August 2013*
Title: "Quantifying Turbulent Dissipation in a Shallow Estuarine Environment", Advisor: Dr. Robert Chant

PUBLICATIONS

[*In preparation*] **Yankovsky, E.**, S. Legg, R. Hallberg, 2019: Parameterizing submesoscale symmetric instability and frontal mixing in dense flows along topography.

Yankovsky, E., S. Legg, 2018: Symmetric and Baroclinic Instability in Dense Shelf Overflows. *Journal of Physical Oceanography,* **49 (1)**, 39-61.

[*Submitted*] Terry, D. A., **E. A. Yankovsky**, C. C. Knapp, 2019: Subspace solutions for seismic velocity analysis. *Geophysical Prospecting*.

Yankovsky, E. A., D. A. Terry, C. C. Knapp, 2015: Seismic and Gravity Evidence for Methane-Hydrate Systems in the Central Aleutian Basin. *Int. J. Earth Sci. Geophys.,* **1-001**.

CONFERENCE PRESENTATIONS AND SEMINARS

Yankovsky, E., S. Legg, Modeling submesoscale mixing processes in dense shelf overflows. *GFDL Poster Expo*, Princeton, NJ, 2019.

Yankovsky, E., S. Legg, Symmetric and baroclinic instability in dense shelf overflows. *EGU General Assembly*, Vienna, Austria, 2019.

Yankovsky, E., S. Legg, Symmetric instability in dense shelf overflows. *Ocean Sciences Meeting*, Portland, OR, 2018.

Yankovsky, E., S. Legg, Modeling baroclinic and submesoscale instabilities in the Arctic Ocean and how they affect dense water formation. *AOCD Fall Seminar Series*, Yale University, CT, 2018.

Yankovsky, E., S. Legg, Baroclinic and symmetric instability in Arctic shelf overflows. *AOS Summer Seminar Series*, Princeton University, NJ, 2018.

Yankovsky, E., S. Legg, Dense water formation and transport on the Arctic continental shelves. *Forum for Arctic Ocean Modeling and Observational Synthesis (FAMOS)*, Woods Hole Oceanographic Institution, MA, 2017.

Yankovsky, E. A., J. A. Lerczak, W. R. Geyer, Response of the Length and Stratification of the North River Estuary to Changes in Forcing. *AGU Fall Meeting*, San Francisco, CA, 2014.

Yankovsky, E. A., D. A. Terry, C. C. Knapp, Plume Structures in the Central Aleutian Basin. *AGU Fall Meeting,* San Francisco, CA, 2013; *Univ. SC Discovery Day,* Columbia, SC, 2014.

WORKSHOPS

Machine Learning and Climate Modeling: Princeton AOS, July 2019.

Convection in Nature: Princeton Center for Theoretical Science, Feb. 2018.

Forum for Arctic Modeling and Observational Synthesis (FAMOS): Woods Hole Oceanographic Institution, Oct. 2017.

Les Houches Summer School on Fundamental Aspects of Turbulent Flows in Climate Dynamics: Les Houches Physics School, Aug. 2017.

AWARDS AND HONORS

2017 National Science Foundation Graduate Research Fellowship

Joseph R. LeConte Outstanding Senior Award, 2015
Department of Earth, Ocean, and Environment, University of SC

Magellan Scholarship for undergraduate research, 2013
A research grant award from University of SC

Society of Exploration Geophysicists Foundation Scholarship, 2013

Lieber Scholarship, University of SC, 2011

Music Scholarship for violin performance, University of SC, 2011

National Merit Scholarship, 2011

COMPUTER EXPERIENCE

MIT General Circulation Model (MITgcm): experience in performing idealized 2D and 3D non-hydrostatic simulations of Arctic shelf processes.

GFDL Modular Ocean Model (MOM6): experience in performing idealized and regional simulations; model development, mixing parameterization.

Other: Python, Jupyter, MATLAB, GitHub, LaTex.
Learning Fortran, shell scripting, HTML & CSS.

TEACHING EXPERIENCE	**Instructor Assistant**: Introduction to Ocean Physics for Climate (GEO-MAE 425). Taught by Gabriel Vecchi, Fall 2018.
	Teaching Transcript Program (Princeton McGraw Center): in progress.
DEPARTMENTAL	Planning Committee for the yearly Princeton **AOS Program Orientation and Retreat** (2018).
	Served as **Student-Faculty Representative** for AOS Program (2017-2018).
	Helped organize **AOS journal club on physical oceanography** (2017-2019).
OUTREACH	**New Jersey Ocean Fun Days** – volunteer, 2019.
	Young Women's Conference in Science, Technology, Engineering & Mathematics (Princeton Plasma Physics Laboratory) – volunteer, 2018-2019.
	Plainsboro Library – developed youth program "Motion in the Ocean", 2017.
	Estuary Day, Environment Day (City of Elizabeth, NJ) – presenter, 2017.
	Future City – member of local nonprofit organization aimed at educating communities about environmental issues, working with policy-makers, and developing environmental initiatives, 2016-2018.
	Environmental Protection Agency: Trash Free Waters – attended meetings to discuss pollution issues facing New York and New Jersey waterways, 2017.
LANGUAGES	Fluent in English & Russian. Proficient in Persian, currently studying French. Also studied Spanish and German in high school/college.