

## RESEARCH EXPERIENCE

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- **Senior Professional Staff Oceanographer**  
Johns Hopkins Applied Physics Laboratory  
Applied numerical ocean modeling and data analysis for naval superiority  
*2021-present*
- **Postdoctoral Fellow**  
University of Hawai'i Manoa, and NCAR  
NSF-funded project "The Impact of Climate Change on the Physics and Biology of the Ocean on Scales Down to the Submesoscale". 2 papers, doi:10.5194/bg-18-3123-2021, doi:10.1029/2020JC016750  
*2018-2021*
- **Graduate Research Assistant**  
Woods Hole Oceanographic Institution  
2 first-author papers, doi:10.1175/JPO-D-20-0028.1 and doi:10.5194/npg-26-37-2019.  
*2012-2018*
- **Undergraduate Researcher**  
Skidmore Collge, advisor Greg Gerbi  
The role of whitecapping in thickening the ocean surface boundary layer, doi:10.1175/JPO-D-14-0234.1  
*2011-2012*
- **Undergraduate Researcher**  
Lehigh University REU, advisor Jim Gunton  
Janus particle self-assembly and encapsulation using Monte Carlo methods. 2 papers, doi:10.1039/C2SM00005A and doi:10.1021/la2032303  
*2011*

## INVITED TALKS

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- **Regional Ocean Modeling: from climate projection to adaptation**  
University of Rochester  
*Oct 2022*
- **The Western Alboran Gyre series (3)**  
Coastal Carolina University, CU Boulder Fluid and Thermal Sciences, Bremen Winter School Symposium  
*Feb 2020, Oct 2018, Mar 2018*

## EDUCATION

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- **Ph.D. Physical Oceanography 2018**  
MIT-WHOI Joint Program, Advisors Drs. Larry Pratt, Irina Rypina  
"Chaotic advection, mixing, and property exchange in three-dimensional ocean eddies and gyres"
- **B.A. Physics and Mathematics 2012**  
Skidmore College  
Summa Cum Laude

## AWARDS

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- **NSF, Tracing the Missing Physics of Submesoscale Entrainment and Subduction**  
Coinvestigator, \$1.1million total, \$90k for APL  
*2022-2025*
- **DARPA, Physics-informed AI Climate Model Agent Neuro-symbolic Simulator**  
Grant co-author, \$700k  
*2022*
- **APL Internal Funding, FY 22**  
\$10k travel, \$6k writing, \$250k R&D grant co-author
- **Red Sock award**  
For poster presentation by a student or postdoc  
SIAM Dynamical Systems  
*2017*

## SKILLS

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- **Software** Microsoft Office Suite, G Suite, LaTeX; Adobe Acrobat, Illustrator, Premier; Zoom, Skype
- **Numerical Ocean Models** CESM, GOTM, MIT-gcm, ROMS
- **Programming Languages** Matlab, FORTRAN, Bash, and Java; familiar with C++, Python, HTML

## SERVICE

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- **Reviewer** 2-3 oceanographic research articles annually; abstracts and travel scholarships for SACNAS.
- **Treasurer** APL Young Professionals Network FY 22