Athina Lange, Ph.D.

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Employment History

2023 – · · · · **Postdoctoral Scholar** | Scripps Institution of Oceanography

2019 - 2023 **Graduate Researcher** | Scripps Institution of Oceanography

Education

2018 - 2023 **Ph.D., University of California, San Diego** Oceanography.
Scripps Institution of Oceanography | San Diego, CA, USA
Thesis title: *Improved wave runup forecasts using remote observations and numerical models*.
Advisors: Mark Merrifield and Bob Guza

2014 - 2018 **B.Sc., University College Dublin** Theoretical Physics.
Dublin, Ireland

Research Publications

Journal Articles

1. A. M. Lange, J. W. Fiedler, M. A. Merrifield, and R. Guza, "Uav video-based estimates of nearshore bathymetry," *Coastal Engineering*, vol. 185, p. 104 375, 2023, ISSN: 0378-3839. DOI: https://doi.org/10.1016/j.coastaleng.2023.104375.

2. A. M. Lange, J. W. Fiedler, J. M. Becker, M. A. Merrifield, and R. Guza, "Estimating runup with limited bathymetry," *Coastal Engineering*, vol. 172, p. 104 055, 2022, ISSN: 0378-3839. DOI: https://doi.org/10.1016/j.coastaleng.2021.104055.

3. M. Merrifield, M. Johnson, R. Guza, *et al.*, "An early warning system for wave-driven coastal flooding at imperial beach, ca.," *Natural Hazards*, vol. 108, pp. 2591–2612, 2021. DOI: https://doi.org/10.1007/s11069-021-04790-x.

Conferences

1. A. M. Lange, J. Fiedler, M. Merrifield, and R. Guza, "Uav-video based estimates of nearshore bathymetry," in *CIRN Workshop*, 2023.

2. A. M. Lange, J. Fiedler, M. Merrifield, and R. Guza, "Estimating surfzone bathymetry remotely," in *Ocean Sciences Meeting*, 2022.

3. A. M. Lange, J. Becker, M. Merrifield, J. Behrens, and E. Terrill, "Relating offshore wave conditions to incident waves and shoreline water levels at ipan, guam during extreme events.," in *Ocean Sciences Meeting*, 2020.

Skills

Languages English (native), French (advanced, DALF C1), German (advanced, Abitur)

Coding MATLAB, Python, LaTeX

Instrumentation Nortek Vector, i2RGUS camera system, Multibeam, LiDAR

Miscellaneous Experience

Certification

- **FAA Part 107**. UAV Pilot