



Mr. Xinlong Liu

1. Background

B.Eng., Harbin Institute of Technology, 2011
M.Eng., Harbin Institute of Technology, 2013
PhD, Memorial University, May 2018 (expected)

2. Thesis and Supervisors

Ocean Wind and Wave Parameters Measurements Using Ship-Borne X-Band Marine Radar

- Supervisors: Dr. Weimin Huang, Dr. Eric Gill

3. Publication

- 1) X. Liu, W. Huang, and E.W. Gill, “An algorithm for estimation of wave parameters from X-band marine radar images,” *IEEE RadarCon*, Oklahoma City, USA, pp. 95-99, 2018.
- 2) W. Huang, X. Liu, and E. W. Gill, “Ocean Wind and Wave Measurements Using X-Band Marine Radar: A Comprehensive Review,” *Remote Sens.*, vol. 9, no. 12, 1261, 2017. (invited paper)
- 3) X. Liu, W. Huang, and E. W. Gill, “Radon Transform-Based Wave Parameters Estimation From X-Band Marine Radar Images,” *IEEE NECEC Conference*, St. John's, Canada, 2017.

- 4) W. Huang, X. Liu, and E. W. Gill, "An Empirical Mode Decomposition Method for Sea Surface Wind Measurements From X-Band Nautical Radar Data," *IEEE Trans. Geosci. Remote Sens.*, vol. 55, no. 11, pp. 6218-6227, 2017.
- 5) X. Liu, W. Huang, and E. W. Gill, "Estimation of Significant Wave Height From X-Band Marine Radar Images Based on Ensemble Empirical Mode Decomposition," *IEEE Geosci. Remote Sens. Lett.*, vol. 14, no. 10, pp. 1740-1744, 2017.
- 6) X. Liu, W. Huang, and E. W. Gill, "Wind Speed Determination From X-Band Nautical Radar Images," *MTS/IEEE Oceans*, Aberdeen, Scotland, 2017.
- 7) X. Liu, W. Huang, and E. W. Gill, "Wind Direction Estimation From Rain-Contaminated Marine Radar Data Using the Ensemble Empirical Mode Decomposition Method," *IEEE Trans. Geosci. Remote Sens.*, vol. 55, no. 3, pp. 1833-1841, 2017.
- 8) X. Liu, W. Huang, and E. W. Gill, "A Method for Wind Speed Estimation From X-Band Nautical Radar Data," *IEEE NECEC Conference*, Newfoundland, Canada, 2016.
- 9) X. Liu, W. Huang, and E. W. Gill, "Wind Direction Determination From Rain-Contaminated X-Band Radar Images," *MTS/IEEE Oceans*, Monterey, USA, 2016.
- 10) X. Liu, W. Huang, and E. W. Gill, "Comparison of Wave Height Measurement Algorithms for Ship-Borne X-Band Nautical Radar," *Can. J. Remote Sens.*, vol. 42, no. 4, pp. 344-353, 2016.
- 11) X. Liu, W. Huang, and E. W. Gill, "Wave Height Estimation from Ship-Borne X-Band Nautical Radar Images," *J. Sensors*, vol. 2016, p. ID 1078053, 2016. (invited paper)
- 12) X. Liu, W. Huang, and E. W. Gill, "Wave Height Estimation From Ship-Borne X-Band Nautical Radar Images - SNR Algorithm vs Modified Shadowing Algorithm," *IEEE NECEC Conference*, Newfoundland, Canada, 2015.
- 13) X. Liu, W. Huang, E. W. Gill, "Analysis of Rain Effects on Wave Height Estimation from X-Band Nautical Radar Images," *MTS/IEEE Oceans*, Washington DC, USA, 2015.
- 14) X. Liu, W. Huang, E. W. Gill, "Shadowing-Analysis-Based Wave Height Measurement from Ship-Borne X-Band Nautical Radar Images," *MTS/IEEE Oceans*, Genova, Italy, 2015.
- 15) X. Liu, W. Huang, and E. W. Gill, "Wave Height Estimation from Ship-Borne X-Band Nautical Radar Images," *36th Canadian Symposium on Remote Sensing*, Newfoundland, Canada, 2015.
- 16) X. Liu, W. Huang, and E. W. Gill, "Significant wave height retrieval based on signal-to-noise ratio analysis from X-band nautical radar images," *IEEE NECEC Conference*, Newfoundland, Canada, 2014.

4. Award

- Best Student Poster Competition Finalist, MTS/IEEE Oceans, Aberdeen, Scotland, 2017
- Wally Read Best Young Professional Paper Award, IEEE NECEC Conference, 2016
- Best Student Poster Competition Finalist, MTS/IEEE Oceans, Monterey, USA, 2016

- Wally Read Best Young Professional Paper Award, IEEE NECEC Conference, 2015
- Fellow of School of Graduate Studies