Mr. Qingyun Yan

1. ***Background***

B.Eng., Nanjing University of Posts and Telecommunication, 2014
M.Eng., Memorial University, May 2016
PhD., Memorial University, May 2020

2. ***Thesis and Supervisors***

Sea Ice Remote Sensing Using Spaceborne Global Navigation Satellite System Reflectometry

- Supervisor: Dr. Weimin Huang

3. ***Publication***

1) Q. Yan, W. Huang, S. Jin, and Y. Jia, "Pan-tropical soil moisture mapping based on a three-layer model from CYGNSS GNSS-R data," *Remote Sens. Environ.*, vol. 247, p. 111944, 2020.
2) Q. Yan and W. Huang, "Sea ice thickness estimation from TechDemoSat-1 and soil moisture ocean salinity data using machine learning methods," *MTS/IEEE Oceans*, Singapore/USA, 2020.
3) Q. Yan and W. Huang, "Sea Ice Thickness Measurement Using Spaceborne GNSS-R: First Results With TechDemoSat-1 Data," *IEEE J. Sel. Topics Appl. Earth Observ. Remote Sens.*, vol. 13, pp. 577-587, 2020.

4) Q. Yan and W. Huang, "Sea ice remote sensing using GNSS-R: a review," *Remote Sens*., vol. 11, no. 21, 2565, 2019.
5) Q. Yan, W. Huang, A. Quadri, and G. Deveaux, "Sea ice thickness estimation from TechDemoSat-1 data using machine learning methods," *IEEE NECEC Conference*, Newfoundland, Canada, 2019.
6) Q. Yan and W. Huang, "Detecting sea ice from TechDemoSat-1 data using support vector machines with feature selection," *IEEE J. Sel. Topics Appl. Earth Observ. Remote Sens*., vol. 12, no. 5, pp. 1409-1416, 2019.
7) Q. Yan and W. Huang, "Sea Ice Thickness Estimation From TechDemoSat-1 Dat," *MTS/IEEE Oceans*, Marseille, France, 2019. (Best Student Poster Competition Finalist)
8) Q. Yan and W. Huang, "Sea Ice Concentration Estimation From TechDemoSat-1 Data Using Support Vector Regression," *IEEE RadarCon*, Boston, USA, 2019.
9) Q. Yan and W. Huang, "Sea Ice Detection From TechDemoSat-1 Data Using Support Vector Machines," *IEEE NECEC Conference*, Newfoundland, Canada, 2018.
10) Q. Yan and W. Huang, "Sea ice sensing from GNSS-R data using convolutional neural networks," *IEEE Geosci. Remote Sens. Lett*., vol. 15, no. 10, pp. 1510-1514, 2018.
11) Q. Yan and W. Huang, "Convolutional neural networks-based sea ice detection from TDS-1 data," *IEEE 18th International Symposium on Antenna Technology and Applied Electromagnetics*, Waterloo, Canada, 2018.
12) Q. Yan and W. Huang, "Sea Ice Detection Based on Unambiguous Retrieval of Scattering Coefficient from GNSS-R Delay-Doppler Maps," *MTS/IEEE Oceans*, Kobe, Japan, 2018. (Best Student Poster Competition Finalist)
13) Q. Yan, W. Huang, and G. Foti, "Quantification of the Relationship between Sea Surface Roughness and the Size of the Glistening Zone for GNSS-R," *IEEE Geosci. Remote Sens. Lett.*, vol. 15, no. 2, pp. 237-241, 2018.
14) Q. Yan, W. Huang, C. Moloney, "Neural Networks-based Sea Ice Detection and Concentration Retrieval From GNSS-R Delay-Doppler Maps," *IEEE J. Sel. Topics Appl. Earth Observ. Remote Sens*., vol. 10, no. 8, pp. 3789-3798, 2017.
15) Q. Yan and W. Huang, "GNSS-R Delay-Doppler Maps-based Sea Ice Detection and Concentration Retrieval Using Neural Networks," *IEEE NECEC Conference*, Newfoundland, Canada, 2016.
16) Q. Yan and W. Huang, "Spaceborne GNSS-R Sea Ice Detection Using Delay-Doppler Maps: First Results From the UK TechDemoSat-1 Mission," *IEEE J. Sel. Topics Appl. Earth Observ. Remote Sens*., vol. 9, no. 10, pp. 4795-4801, 2016.
17) Q. Yan and W. Huang, "Tsunami Detection and Parameter Estimation From GNSS-R Delay-Doppler Map," *IEEE J. Sel. Topics Appl. Earth Observ. Remote Sens*., vol. 9, no. 10, pp. 4650-4659, 2016.
18) Q. Yan, W. Huang, "Sea Ice Detection From GNSS-R Delay-Doppler Map," *IEEE 17th International Symposium on Antenna Technology and Applied Electromagnetics*, Montreal, Canada, 2016.
19) Q. Yan, W. Huang, "Retrieval of Ionospheric TEC over Oceans From GNSS-R Delay-Doppler Map," *MTS/IEEE Oceans*, Shanghai, China, 2016.
20) Q. Yan and W. Huang, "GNSS-R Delay-Doppler Map Simulation Based on the 2004 Sumatra-Andaman Tsunami Event," *J. Sensors*, vol. 2016, p. ID 2750862, 2016. (invited paper)
21) Q. Yan and W. Huang, "GNSS-R delay-Doppler map-based tsunami detection and parameter estimation," *IEEE NECEC Conference*, Newfoundland, Canada, 2015

22) Q. Yan, W. Huang, "A Process to Simulate GNSS-R Delay-Doppler Map of Tsunami-dominant Sea Surface," *MTS/IEEE Oceans*, Washington DC, USA, 2015. (Best Student Poster Competition Finalist)
23) Q. Yan and W. Huang, "An alternative method for sea surface wind speed determination from GNSS-R delay-Doppler map," *36th Canadian Symposium on Remote Sensing*, Newfoundland, Canada, 2015.
24) Q. Yan and W. Huang, "A review of sea surface wind sensing using GNSS-R," *IEEE NECEC Conference*, Newfoundland, Canada, 2014.

4. ***Award***

- The 2020 Chinese Government Award for Outstanding Self-financed Students Abroad, China Scholarship Council, 2020
- IEEE GRSS Letters Prize Paper Award, IEEE, 2019
- Fellow of School of Graduate Studies, 2019
- Best Student Poster Competition Finalist, MTS/IEEE Oceans, Marseille, France, 2019
- Best Student Poster Competition Finalist, MTS/IEEE Oceans, Kobe, Japan, 2018
- Pass PhD Comprehensive with Distinction, Memorial University, 2016
- F. A. Aldrich Graduate Award, Memorial University, 2016
- Wally Read Best Student Paper Award, IEEE NECEC Conference, 2015
- Best Student Poster Competition Finalist, MTS/IEEE Oceans, Washington DC, USA, 2015
- Fellow of School of Graduate Studies, 2015, 2019