

Simon H. Yueh
Jet Propulsion Laboratory
California Institute of Technology
4800 Oak Grove drive, Pasadena, Ca 91109
Phone: (818) 354-3012; Email: simon.yueh@jpl.nasa.gov

Simon H. Yueh received the Ph.D. degree in Electrical Engineering in January 1991 from the Massachusetts Institute of Technology. He was a postdoctoral research associate at the Massachusetts Institute of Technology from February to August 1991. In September 1991, he joined the Radar Science and Engineering Section at the Jet Propulsion Laboratory (JPL). He was the supervisor of radar system engineering and algorithm development group from 2002-2007, the deputy manager of Climate, Oceans and Solid Earth section from July 2007 to March 2009, and the section manager from April 2009 to Jan 2013. He served as the Project Scientist of the National Aeronautics and Space Administration (NASA) Aquarius mission from January 2012 to September 2013, the Deputy Project Scientist of NASA Soil Moisture Active Passive Mission from Jan 2013 to September 2013, and the SMAP Project Scientist since October 2013. He has been the Principal/Co-Investigator of numerous NASA and DOD research projects on remote sensing of ocean salinity, ocean wind, terrestrial snow and soil moisture. He has authored four book chapters and published more than 200 publications and presentations. He received the 2014 IEEE GRSS Transaction Prize Paper award, 2010 IEEE GRSS Transaction Prize Paper award, 2002 IEEE GRSS Transaction Prize Paper award, the 2000 Best Paper Award in the IEEE International Geoscience and Remote Symposium 2000, and the 1995 IEEE GRSS Transaction Prize Paper award for a paper on polarimetric radiometry. He received the JPL Lew Allen Award in 1998 and Ed Stone Award in 2003. He was an associate editor of Radio Science from 2002 to 2006. He is the Editor in Chief of IEEE Transactions on Geoscience and Remote Sensing and is the Fellow of IEEE.

Education

Ph.D. degree in Electrical Engineering in January 1991 from the Massachusetts Institute of Technology. Dissertation on polarimetric radar remote sensing modeling of vegetation.
Master degree in Electrical Engineering in June 1984 from the National Taiwan University
Bachelor degree in Electrical Engineering in June 1982 from the National Taiwan University

Employment

10/2013-Present SMAP Project Scientist, Jet Propulsion Laboratory
1/2014-Present Senior Research Scientist, Jet Propulsion Laboratory
1/2012-9/2013 Aquarius Project Scientist, Jet Propulsion Laboratory
2/2013-9/2013 SMAP Deputy Project Scientist, Jet Propulsion Laboratory
1/2006-12/2011 Aquarius Instrument Scientist, Jet Propulsion Laboratory
4/2009-1/2013 Manager, Climate, Oceans and Solid Earth Section
7/2007-3/2009 Deputy Manager, Climate, Oceans and Solid Earth Section
1/2003-6/2007 Supervisor, Radar System Engineering and Algorithm Development Group, Radar Science and Engineering Section, Jet Propulsion Laboratory
9/2000-1/2014 Principal Engineer, Radar Science and Engineering Section, Jet Propulsion Laboratory
9/1998-8/2000 Senior Engineer, Radar Science and Engineering Section, Jet Propulsion Laboratory

9/1991-8/1998 Member of Technical Staff, SIR-C, NSCAT, SeaWinds radar system engineering, Radar Science and Engineering Section, Jet Propulsion Laboratory
1/1991-8/1991 Postdoctoral research associate at the Massachusetts Institute of Technology
8/1986-12/1990 Research Assistant, Massachusetts Institute of Technology

Awards

2014 IEEE GRSS Transaction Prize Paper award for the paper, entitled “L-band Passive and Active Microwave Geophysical Model Functions of Ocean Surface Winds and Applications to Aquarius Retrieval”

2010 IEEE GRSS Transaction Prize Paper award for the paper, entitled “Airborne Ku-band Polarimetric Radar Remote Sensing of Terrestrial Snow Cover”

2002 IEEE GRSS Transaction Prize Paper award for the paper, entitled “Polarimetric Radar Remote Sensing of Ocean Surface Wind”.

2000 Best Paper Award in the IEEE International Geoscience and Remote Symposium 2000. The title of the paper is “QuikSCAT Geophysical Model Function and Imaging of Tropical Cyclone Winds.”

1995 IEEE GRSS Transaction Prize Paper award for a paper on polarimetric radiometry

2003 JPL 2003 Edward Stone Award for Outstanding Research Publication, “Error Sources and Feasibility for Microwave Remote Sensing of Ocean Surface Salinity,” IEEE Trans. Geosci. Remote Sensing, 39, 1049-1060, 2001.

1998 JPL Director Lew Allen Award for Excellence in recognition for his pioneering research of passive microwave polarimetric remote sensing to earth surface investigations.

2013 NASA Group Achievement on Aquarius Calibration and Validation

2012 NASA Group Achievement on Aquarius Launch, Early Orbit Ops, and Commissioning Team

2007 NASA Honor Award for the SeaWinds/AMSR Processing Team

1996 NASA Scatterometer Group Achievement Award

1995 NASA Certificate of Recognition for a publication as a NASA Tech Brief entitled “Application of A Neural Network for Retrieving Sea Ice Thickness from Model-Generated Polarimetric Scattering Coefficients.”

1994 NASA Certificate of Recognition for a publication as a NASA Tech Brief entitled “External Calibration of Polarimetric Radar Images Using Distributed Targets.”

1992 NASA Certificate of Recognition for a publication as a NASA Tech Brief entitled “Classification of Earth Terrain Using Polarimetric Synthetic Aperture Radar Images.”

Professional Society Membership and Community Service

URSI Commission F since Jan 2016

Fellow of IEEE since 2009

Fellow Search Committee of IEEE Geoscience and Remote Sensing Society from 2014 to 2016

Associate editor of IEEE Trans Geoscience and Remote Sensing from 2007 to present

Associate editor of Radio Science from 2002 to 2006

Technical Program committee and session chair, IEEE International Geoscience and Remote Sensing Symposium in 1996, 1998, 2000, 2005, 2006, 2007, 2010, 2011, 2012, 2013, 2014, 2015 and 2016

Reviewers for IEEE Transaction on Geoscience and Remote Sensing and Transaction on Antenna and Propagation

NASA Independent Assessment Team for the Global Precipitation Mission, June 2002-March 2003

NASA Cold Land Process Working Group, 2001 to 2005

Technical Program committee, Progress in Electromagnetics Research Symposium in 1996.

NASA Salinity Sea Ice Working Group, 1998 to 2000

Reviewers for Radio Science, International Journal of Remote Sensing, and Journal of Electromagnetic Waves and Applications

Publications

Book Chapters:

S. H. Yueh, J. A. Kong, J. K. Jao, R. T. Shin, H. A. Zebker, T. Le Toan, and Herwig Ottl, "K-distribution and Polarimetric Terrain Radar Clutter," Progress In Electromagnetics Research, Elsevier, New York, Vol. 3, Chapter 4, 1990.

J. A. Kong, S. H. Yueh, H. H. Lim, R. T. Shin, and J. J. van Zyl, "Classification and Maximum Contrast of Earth Terrain Using Polarimetric Synthetic Aperture Radar Images," Progress In Electromagnetics Research, Elsevier, New York, Vol. 3, Chapter 6, 1990.

S. H. Yueh, J. A. Kong, and R. T. Shin, "Calibration of Polarimetric Radars Using In-Scene Reflectors," Progress In Electromagnetics Research, Elsevier, New York, Vol. 3, Chapter 9, 1990.

H. A. Yueh, R. T. Shin, and J. A. Kong, "Scattering from Randomly Perturbed Periodic and Quasiperiodic Surfaces," Progress In Electromagnetics Research, Elsevier, New York, Vol 1, Chapter 4, p. 297--358, 1989.

Refereed Journal Publications:

1. Wenqing Tang, Alexander Fore, Simon Yueh, Tong Lee, Akiko Hayash, Alejandra Sanchez-Franks, Brian King, Dariusz Baranowski, and Justino Martinez, Validating SMAP SSS with in situ measurements, Remote Sensing of Environment, doi:10.1016/j.rse.2017.08.021
2. S. Yueh, X. Xu, R. Shah, Y. J. L. Garrison, A. Komanduru, and K. Elder, "Remote Sensing of Snow Water Equivalent Using Coherent Reflection From Satellite Signals of Opportunity: Theoretical Modeling," IEEE Journal Of Selected Topics In Applied Earth Observations And Remote Sensing, DOI: 10.1109/JSTARS.2017.2743172.
3. Shah, R., X. Xu, S. Yueh, C.-S. Chae, K. Elder, R. Starr, and Y. Kim, Remote Sensing of Snow Water Equivalent using P-band Coherent Detection, IEEE Geosci. Remote Letts., Vol. 14, No. 3, pp. 309-313, March 2017.
4. Peng, J., Misra, S., Piepmeier, J.R., Dinnat, E. P., Hudson, D., Le Vine, D. M., De Amici, G., Mohammed, P. N., Bindlish, R., and Yueh, S. H., "Soil Moisture Active/Passive L-Band Microwave Radiometer Postlaunch Calibration," IEEE Trans. Geosci. Remote Sens., Vol. 55, No. 9, pp. 5339-5354, doi: 10.1109/TGRS.2017.2705342, Sept. 2017
5. Colliander, A., Cosh, M. H., Misra, S., Jackson, T.J., Crow, W.T., Chan, S., Bindlish, R., Chae, C., Collins, C.H., Yueh, SH," Validation and scaling of soilmoisture in a semi-arid environment: SMAP validation experiment 2015 (SMAPVEX15)," Remote Sensing of Environment, Vol. 196, pp. 101-112, DOI: 10.1016/j.rse.2017.04.022, July 2017.
6. Burgin, M.S., Colliander, A., Njoku, E. G., Chan, S. K., Cabot, F., Kerr, Y. H., Bindlish, R., Jackson, T. J., Entekhabi, D., Yueh, S. H., "A Comparative Study of the SMAP Passive Soil Moisture Product With Existing Satellite-Based Soil Moisture Products," IEEE Trans. Geoscience Remote Sens., Vol. 55, No. 5, pp. 2959-2971, DOI: 10.1109/TGRS.2017.2656859, May 2017
7. Kim, S.B., van Zyl, J.J., Johnson, J.T., Moghaddam, M., Tsang, L., Colliander, A., Dunbar, R.S., Jackson, T.J., Jaruwatanadilok, S., West, R. "Surface Soil Moisture Retrieval Using the L-Band Synthetic Aperture Radar Onboard the Soil Moisture Active-Passive Satellite and Evaluation at Core Validation Sites," IEEE Trans. Geosci. Remote Sens., Vol. 55, No. 4, pp. 1897-1914, doi: 10.1109/TGRS.2016.2631126, April 2017.
8. Xu, X., Derksen, C., Yueh, S. H., Dunbar, Roy Scott, Colliander, A., Freeze/Thaw Detection and Validation Using Aquarius' L-Band Backscattering Data, IEEE Journal Of Selected Topics In Applied Earth Observations And Remote Sensing, Vol. 9, Issue 4, pp. 1370-1381, DOI: 10.1109/JSTARS.2016.2519347, Apr. 2016.
9. Alexander G. Fore, Simon H. Yueh, Wenqing Tang, Bryan W. Stiles, and Akiko K. Hayashi, "Combined Active / Passive Retrievals of Ocean Vector Wind and Sea Surface Salinity with SMAP," IEEE Trans Geosci. Remote Sens., vol. 54, No. 12, pp. 7396-7404, 2016.
10. Simon Yueh, Alexander Fore, Wenqing Tang, Hayashi Akiko, Bryan Stiles, Nicolas Reul, Yonghui Weng and Fuqing Zhang, "SMAP L-Band Passive Microwave Observations of Ocean Surface Wind During Severe Storms," IEEE Trans Geosci. Remote Sens., vo.. 54, no. 12, pp. 7339-7350, 2016.
11. Leroux, Delphine J., Das, N. Entekhabi, D., Colliander, A., Njoku, E., Thomas, J., Yueh, S., "Active-Passive Soil Moisture Retrievals During the SMAP Validation

- Experiment 2012,” IEEE Geoscience And Remote Sensing Letters, Vol. 13, Issue: 4, pp. 475-479, Apr. 2016.
12. Huang, H.T., Kim, S.B., Tsang, L., Xu, X.L., Liao, T.H., Jackson, T. J., Yueh, S. H., “Coherent Model of L-Band Radar Scattering by Soybean Plants: Model Development, Evaluation, and Retrieval,” IEEE Journal Of Selected Topics In Applied Earth Observations and Remote Sensing, Vol. 9, pp. 272-284, Jan 2016.
 13. Das, N. N., Entekhabi, D., Dunbar, R. S., Njoku, E. G., Yueh, S. H., “Uncertainty Estimates in the SMAP Combined Active-Passive Downscaled Brightness Temperature,” IEEE Transactions On Geoscience And Remote Sensing, Vol. 54, No. 2, pp. 640-650, Feb 2016.
 14. Yueh, S. H., W. Tang, A. G. Fore, and A. Hayashi, “Impact of Ocean Wave Height on L-band Passive and Active Microwave Observations of Sea Surfaces,” IEEE J. Selected Topics in Applied Earth Obs. Remote Sens., Vol. 8, No. 12, pp. 5491-5499, Dec 2015.
 15. Fore, A. G., Neumann, G., Freedman, A. P., Chaubell, M. J., Tang, W. Q., Hayashi, A. K., Yueh, S. H., “Aquarius Scatterometer Calibration,” IEEE Journal Of Selected Topics In Applied Earth Observations And Remote Sensing, Vol. 8, No. 12, pp. 5424-5432, Dec 2015.
 16. Tang, W. Q., Yueh, S. H., Hayashi, A. Fore, A. G., Jones, W. L., Santos-Garcia, A., Jacob, M. M., “Rain-Induced Near Surface Salinity Stratification and Rain Roughness Correction for Aquarius SSS Retrieval,” IEEE Journal Of Selected Topics In Applied Earth Observations And Remote Sensing, Vol. 8, No. 12, pp. 5474-5484, Dec 2015.
 17. Kim, S. B., Jackson, T. J., Yueh, S. H., Xu, X. L., Hensley, S., “Feasibility of Inter-Comparing Airborne and Spaceborne Observations of Radar Backscattering Coefficients,” IEEE Journal Of Selected Topics In Applied Earth Observations And Remote Sensing, Vol. 8, No. 7, pp. 3507-3519, July 2015.
 18. Colliander, A., Jackson, McNairn, H, Chazanoff, S, Dinardo, S, Latham, B O'Dwyer, I, Chun, W, Yueh, S, and Njoku, E, “Comparison of Airborne Passive and Active L-Band System (PALS) Brightness Temperature Measurements to SMOS Observations During the SMAP Validation Experiment 2012 (SMAPVEX12),” IEEE Geoscience and Remote Sensing. Letters, Vol. 12, Issue: 4, pp. 801-805, April 2015.
 19. Song, Y. T., Lee, T., Moon, J. H., Qu, T. D., Yueh, S. H., “Modeling skin-layer salinity with an extended surface-salinity layer,” Journal Of Geophysical Research-Oceans, Vol. 120, Issue 2, pp. 1079-1095, Feb. 2015.
 20. Hedrick, A., Marshall, H. P., Winstral, A., Elder, K., Yueh, S., Cline, D., “Independent evaluation of the SNODAS snow depth product using regional-scale lidar-derived measurements,” Cryosphere, Vol. 9, Issue 1, pp. 13-23, 2015.
 21. Yueh, S. H., W. Tang, A. Fore, A. Hayashi, Y. T. Song, and G. Lagerloef, “Aquarius geophysical model function and combined active passive algorithm for ocean surface salinity and wind retrieval”, *J. Geophys. Res. Oceans*, 119, 5360–5379, doi:10.1002/2014JC009939, 2014.
 22. Kim, S. B., Lee, J. H., de Matthaeis, P., Yueh, S., Hong, C. S., Lee, J. H., Lagerloef, G., “Sea surface salinity variability in the East China Sea observed by the Aquarius instrument,” Journal Of Geophysical Research-Oceans, Vol. 119, Issue 10, pp. 7016-7028, Oct. 2014.

23. W. Tang, S. H. Yueh, A. Fore, A. Hayashi, T. Lee, and G. Lagerloef, “Uncertainty of Aquarius sea surface salinity retrieved under rainy conditions and its implication on the water cycle study”, *J. Geophys. Res., Oceans*, 119, 4821–4839, doi:10.1002/2014JC009834, 2014.
24. Wenqing Tang, Simon Yueh, Alexander Fore, Gregory Neumann, Akiko Hayashi, and Gary Lagerloef, “The rain effect on Aquarius’ L-band sea surface brightness temperature and radar backscatter,” *Remote Sensing of Environment*, 137, pp. 147-157, 2013.
25. Yueh, S. H., W. Tang, A. Fore, G. Neumann, A. Hayashi, A. Freedman, J. Chaubell, and G. Lagerloef, 2013, L-band Passive and Active Microwave Geophysical Model Functions of Ocean Surface Winds and Applications to Aquarius Retrieval. *IEEE Trans. Geoscience and Remote Sensing*, 51 (9), 4619-4632, DOI: 10.1109/TGRS.2013.2266915.
26. Alexander G. Fore, Simon H. Yueh, Wenqing Tang, and Akiko K. Hayashi, Aquarius Wind Speed Products: Algorithms and Validation, *IEEE Trans. Remote Sens.*, Vol. PP, No.99, pp.1,8, 0. doi: 10.1109/TGRS.2013.2267616.
27. Lee, T., G. Lagerloef, M. M. Gierach, H.-Y. Kao, **S. Yueh**, K. Dohan, “Aquarius reveal salinity structure of tropical instability waves,” *Geophys. Res. Lett.*, 39, L12610, doi: 10.1029/2012GL052232, 2012.
28. Xu, XL , Tsang, L and **Yueh, S.**, “Electromagnetic Models of Co/Cross Polarization of Bicontinuous/DMRT in Radar Remote Sensing of Terrestrial Snow at X- and Ku-band for CoReH₂O and SCLP Applications ,” *IEEE J. Selected Topics in Applied Earth Observations and Remote Sensing*, Vol. 5, Issue 3, pp. 1024-1032, DOI: 10.1109/JSTARS.2012.2190719, JUN 2012.
29. Colliander, A, Chan, S, Kim, SB, Das, N, **Yueh, S**, Cosh, M, Bindlish, R, Jackson, T, and Njoku, E, Long term analysis of PALS soil moisture campaign measurements for global soil moisture algorithm development, *REMOTE SENSING OF ENVIRONMENT* Volume: 121 Pages: 309-322, DOI: 10.1016/j.rse.2012.02.002, JUN 2012.
30. **Simon Yueh** and J Chaubell, “Sea Surface Salinity and Wind Retrieval using Combined Passive and Active L-Band Microwave Observations”, *IEEE Trans. Geosci. Remote Sens.*, Vol. 50, No. 4, pp. 1022-1032, April 2012.
31. James L. Garrison, Justin K. Voo, **Simon H. Yueh**, Michael S. Grant, Alexander G. Fore, and Jennifer S. Haase, Estimation of Sea Surface Roughness Effects in Microwave Radiometric Measurements of Salinity Using Reflected Global Navigation Satellite System Signals, *IEEE Geoscience and Remote Sensing Letters*, Vol. 8, No. 6, pp. 1170-1174, NOV. 2011
32. X. Xu, D. Liang, L. Tsang, K. M. Andreadis, E. G. Josberger, D. P. Lettenmaier, D. W. Cline, and **S. H. Yueh**, Active Remote Sensing of Snow Using NMM3D/DMRT and Comparison with CLPX-II Airborne Data, *IEEE J. Selected Topics in Applied Earth Observations and Remote sensing*, Vol. 3, No. 4, pp. 689-697, Dec 2010.
33. **Simon Yueh**, Steve Dinardo, Alexander Fore, and Fuk Li, “Passive and Active L-Band Microwave Observations and Modeling of Ocean Surface Winds”, *IEEE Trans. Geosci. Remote Sens.*, Vol. 48, No. 8, pp. 3087-3100, August 2010.
34. Helmut Rott, **Simon Yueh**, Donald W. Cline, Claude Duguay, Richard Essery, Christian Haas, Florence Hélière, Michael Kern, Giovanni Macelloni, Eirik Malnes, Thomas Nagler, Jouni Pulliainen, Helge Rebhan, Alan Thompson, “Cold Regions Hydrology High-resolution Observatory for Snow and Cold Land Processes,” *IEEE Proceedings*, Vol. 98, No. 5, pp. 752-765, May 2010.

35. **Yueh S.**, Steve Dinardo, Ahmed Akgiray and Richard West, Donald Cline, Kelly Elder, Airborne Ku-band Polarimetric Radar Remote Sensing of Terrestrial Snow Cover, IEEE Transactions on Geosci and Remote Sensing, Vol. 47, No. 10, 3347-3364, 2009.
36. Bindlish, Rajat, Jackson, Thomas, Sun, Ruijing, Cosh, Michael, **Yueh, Simon**, Dinardo, Steve, Combined Passive and Active Microwave Observations of Soil Moisture During CLASIC, IEEE Geoscience And Remote Sensing Letters, Vol. 6, Issue: 4, Pages: 644-648, Oct 2009.
37. Cline D, **Yueh S**, Chapman B, et al., NASA Cold Land Processes Experiment (CLPX 2002/03): Airborne Remote Sensing, J. Hydrometeorology, Vol. 10, Issue: 1, 338-346, Feb 2009.
38. Lagerloef G, Colomb FR, Le Vine D, et al., The Aquarius/Sac-D Mission: Designed To Meet The Salinity Remote-Sensing Challenge, Oceanography, Vol. 21, Issue: 1, Special Issue: Sp. Iss. SI Pages: 68-81, MAR 2008.
39. **Simon Yueh**, Directional Signals in Windsat Observations of Hurricane Ocean Winds, IEEE Trans. Geosci. Remote Sensing, Vol. 46, No. 1, 130-136, 2008.
40. D.M. Le Vine, G.S.E. Lagerloef, R. Coloma, **S. Yueh**, and F. Pellerano, "Aquarius: An Instrument to Monitor Sea Surface Salinity from Space," IEEE Trans. Geosci. And Remote Sensing, Vol. 45, No. 7, 2040-2050, July 2007.
41. Yahya Rahmat-Samii, K. Kona, M. Manteghi, **S. Yueh**, W. Wilson, S. Dinardo, D. Hunter, "A Novel Lightweight Dual-frequency Dual-polarized Sixteen Element Stacked Patch Microstrip Array Antenna for Soil Moisture and Sea surface Salinity Missions," IEEE Antenna and Propagation Magazine, 48, 33-46, Dec 2006.
42. **Simon H. Yueh**, William Wilson, Steve Dinardo, and S. V. Hsiao , "Polarimetric Microwave Wind Radiometer Model Function and Retrieval Testing for WindSat", IEEE Trans. Geosci. And Remote Sensing, Vol. 44, No. 2, 584-596, March 2006.
43. William J. Wilson, **Simon H. Yueh**, Steve Dinardo, and Fuk Li, "High Stability L-band Radiometer Measurements of Saltwater," IEEE Trans. Geosci. and Remote Sens., Vol. 42, No.9, 1829-1835, September 2004.
44. Koblinsky, C.J., P. Hildebrand, D. LeVine, F. Pellerano, Y. Chao, W. Wilson, **S. Yueh**, and G. Lagerloef, Sea Surface Salinity from Space: Science Goals and Measurement Approach, *Radio Science*, 38, 4, 8064, 2003.
45. D. LeVine, C. Koblinsky, F. Pellerano, Gary Lagerloef, Y. Chao, **S. Yueh**, W. Wilson, A sensor to measure salinity in the open ocean from space, *International Journal of Remote Sensing*, 25, 1313 – 1318, 2004.
46. **Yueh, S.H.**, B. Stiles, W. T. Liu, "QuikSCAT wind retrievals for tropical cyclones," IEEE Trans. Geosci and Remote Sens., 41 (11): 2616-2628 Part 1, Nov 2003.
47. S. L. Durden, L. Li, E. Im, and **S. H. Yueh**, "A surface reference technique for airborne Doppler radar measurements in hurricanes," J. Atmos. Oceanic Technol., vol 20., pp. 269-275, 2003.
48. Njoku, E., W. J. Wilson, **S. H. Yueh**, S. J. Dinardo, F. K. Li, T. J. Jackson, V. Lakshmi, and J. Bolten, Observations of Soil moisture Using a Passive and Active Low-Frequency Microwave Airborne Sensor During SGP99, IEEE Trans. Geosci. Remote Sens., 40, December 2002.
49. B. W. Stiles and **S. H. Yueh**, Impact of Rain on Spaceborne Ku-Band Wind Scatterometer Data, IEEE Trans. Geosci. Remote Sens., 40, 1973-1983, September 2002.
50. **S. H. Yueh**, W. J. Wilson, and S. Dinardo, Polarimetric Radar Remote Sensing of Ocean Surface Wind, IEEE Trans. Geosci. Remote Sens., 40, 793-800, April 2002.
51. **Yueh, Simon H.**, B. W. Stiles, W.-Y Tsai, Hua Hu, and W. T. Liu, QuikSCAT Geophysical Model Function for Tropical Cyclones and Applications to Hurricane Floyd, IEEE Trans. Geosci. Remote Sens., 39, 2601-2612, Dec 2001.

52. **Yueh, S. H.**, R. West, W. J. Wilson, F. K. Li, E. G. Njoku, and Y. Rahmat-Samii, Error sources and feasibility for microwave remote sensing of ocean surface salinity, *IEEE Trans. Geosci. Remote Sensing*, 39, 1049-1060, 2001.
53. Wilson, William J., **Simon H. Yueh**, Steven J. Dinardo, Seth Chazanoff, Fuk Li, and Y. Rahmat-Samii, "Passive Active L- and S-band (PALS) Microwave Sensor for Ocean Salinity and Soil Moisture Measurements," *IEEE Trans. Geosci. Remote Sensing*, 39, 1039-1048, 2001.
54. Liu, W. T., Hua Hu, and **Simon Yueh**, Quikscat and TRMM Reveal the Interplay Between Dynamic and Hydrologic Parameters in Hurricane Floyd, *EOS letter*, Vol. 81, No. 23, June 6, 2000.
55. **Yueh, S. H.**, "Estimates Of Faraday Rotation With Passive Microwave Polarimetry For Microwave Remote Sensing Of Earth Surfaces," *IEEE Trans. Geosci. Remote Sensing*, Vol. 38, No. 5, 2434-2438, September 2000.
56. Njoku, E. G., W. J. Wilson, **S. H. Yueh**, and Y. Rahmat-Samii, "A Large-Antenna Microwave Radiometer-Scatterometer Concept for Ocean Salinity and Soil Moisture Sensing," *IEEE Trans. Geosci. Remote Sensing*, Vol. 38, No. 6, 2645-2655, 2000.
57. **Yueh, S. H.**, R. West, F. K. Li, W.-Y. Tsai, and R. Lay, "Dual-polarized Ku-band Backscatter Signatures of Hurricane Ocean Winds," *IEEE Trans. Geosci. Remote Sensing*, Vol. 38, No. 1, 73-88, January 2000.
58. **Yueh, S. H.**, W. J. Wilson, S. J. Dinardo, F. K. Li, "Polarimetric Microwave Brightness Signatures of Ocean Wind Directions," *IEEE Trans. Geosci. Remote Sensing*, Vol. 37, No. 2, 949-959, 1999.
59. Kwok R., G. F. Cunningham, **S. H. Yueh**, "Area balance of the Arctic Ocean perennial ice zone: October 1996 to April 1997," *J. Geophys. Res.-Oceans*, 104, C11, 25747-25759, Nov 15, 1999.
60. C.-P. Yeang, **S. H. Yueh**, K.-H. Ding, and J. A. Kong, "Atmospheric effect on microwave polarimetric passive remote sensing of ocean surfaces," *Radio Science*, Vol. 34, 521-537, March-April, 1999.
61. **Yueh, S. H.** and R. Kwok, "Arctic sea ice extent and melt onset," from NSCAT observations," *Geophysical Res. Letters*, Vol. 25, No. 23, 4369-4372, Dec. 1998.
62. Nghiem S.V., Kwok R, **Yueh S.H.**, Gow A.J., Perovich D.K., Hsu C.C., Ding K.H., Kong J.A., Grenfell T.C., "Diurnal thermal cycling effects on microwave signatures of thin sea ice," *IEEE Trans. Geosci. Remote Sens.*, Vol. 36 (1): 111-124, Jan 1998.
63. Nghiem SV, Kwok R, **Yueh SH**, Gow AJ, Perovich DK, Kong JA, Hsu CC, "Evolution in polarimetric signatures of thin saline ice under constant growth," *Radio Science*, 32 (1), 127-151 Jan-Feb 1997.
64. **Yueh, S. H.**, R. Kwok, S.-H. Lou, and W.-Y. Tsai, "Identification of sea ice using dual-polarized Ku-band scatterometer data," *IEEE Trans. Geosci. Remote Sensing*, Vol. 35, No. 3, 560-569, 1997.
65. **Yueh, S. H.**, "Modelling of wind direction signals in polarimetric sea surface brightness temperatures," *IEEE Trans. Geosci. Remote Sensing*, Vol. 35, No. 6, 1400-1418, 1997.
66. **Yueh, S. H.**, W. J. Wilson, F. K. Li, S. V. Nghiem, and W. B. Ricketts, "Polarimetric brightness temperatures of sea surfaces measured with aircraft K- and Ka-band radiometers," *IEEE Trans. Geosci. Remote Sensing*, Vol. 35, No. 5, 1177-1187, September 1997.
67. **Yueh, S. H.**, W. J. Wilson, F. K. Li, W. B. Ricketts, and S. V. Nghiem, "Polarimetric measurements of sea surface brightness temperatures using an aircraft K-band radiometer," *IEEE Trans. Geosci. Remote Sensing*, Vol. 33, No. 1, 85-92, 1995.

68. Hara, Y., R. G. Atkin, R. T. Shin, J. A. Kong, **S. H. Yueh**, and R. Kwok, "Application of neural networks for sea ice classification in polarimetric SAR images," *IEEE Trans. Geosci. Remote Sensing*, Vol. 33, No. 3, 740-748, 1995.
69. Kwok, R., S. V. Nghiem, **S. H. Yueh**, and D. D. Huynh, "Retrieval of thin ice thickness from multifrequency polarimetric SAR data," *Remote Sens. of Environment*, Vol. 51, No. 3, 361-374, 1995.
70. Nghiem, S. V., R. kwok, **S. H. Yueh**, and M. R. Drinkwater, "Polarimetric signatures of sea ice .2. Theoretical model," *J. Geophy. Res. Oceans*, Vol. 100, No. C7, 13665-13679, 1995.
71. Nghiem, S. V., R. kwok, **S. H. Yueh**, and M. R. Drinkwater, "Polarimetric signatures of sea ice .2. Experimental observations," *J. Geophy. Res. Oceans*, Vol. 100, No. C7, 13681-13698, 1995.
72. Nghiem, S. V., R. kwok, **S. H. Yueh**, J. A. Kong, C. C. Hsu, M. A. Tassoudji, and R. T. Shin, "Polarimetric scattering from layered media with multiple species of scatterers," *Radio Science*, Vol. 30, No. 4, 835-852, July-August, 1995.
73. **Yueh, S. H.**, R. Kwok, and S. V. Nghiem, "Polarimetric scattering and emission properties of targets with reflection symmetry," *Radio Science*, Vol. 29, No. 6, 1409-1420, November-December, 1994.
74. H. H. Lim, M. E. Veysoglu, **S. H. Yueh**, R. T. Shin, and J. A. Kong, "Random medium model approach to scattering from a random collection of discrete scatterers," *Journal of Electromagnetic Waves and Applications*, Vol. 8, No. 7, 801-817, 1994.
75. **Yueh, S. H.**, R. Kwok, F. K. Li, S. V. Nghiem, W. J. Wilson, and J. A. Kong, "Polarimetric passive remote sensing of ocean wind vectors," *Radio Science*, Vol 29, No. 4, 799-814, July-August 1994.
76. **Yueh, S. H.**, S. V. Nghiem, R. Kwok, W. J. Wilson, F. K. Li, J. T. Johnson, and J. A. Kong, "Polarimetric thermal emission from periodic water surfaces," *Radio Science*, Vol. 29, No. 1, 87-96, January, 1994.
77. Yoshihisa Hara, R. G. Atkins, **S. H. Yueh**, R. T. Shin, and J. A. Kong, "Application of Neural Networks to Radar Image Classification," *IEEE Trans. Geosci. Remote Sensing*, Vol. 32, No. 1, 100-109, January 1994.
78. Johnson, J. T., J. A. Kong, R. T. Shin, **S. H. Yueh**, S. V. Nghiem, and R. Kwok, "Polarimetric thermal emission from rough ocean surfaces," *J. Electromagnetic Waves and Appl.*, Vol. 8, No. 1, 43-59, 1994.
79. Nghiem, S. V., **S. H. Yueh**, R. Kwok, and D. T. Nguyen, "Polarimetric remote sensing of geophysical medium structures," *Radio Science*, Vol. 28, No. 6, 1111-1130, November-December, 1993.
80. **Yueh, S. H.** and R. Kwok, "Electromagnetic fluctuations for anisotropic media and the generalized Kirchhoff's law," *Radio Science*, Vol. 28, No. 4, pp. 471-480, July-August, 1993.

81. **S. H. Yueh**, S. V. Nghiem, and R. Kwok, "Symmetrization of the cross-polarized responses in Polarimetric Radar Images Using Reciprocity," *IEEE Trans. Geosci. Remote Sensing*, Vol. 31, No. 6, 1180-1185, December 1993.
82. S. V. Nghiem, **S. H. Yueh**, R. Kwok, and F. K. Li, "Symmetry properties in polarimetric remote sensing," *Radio Science*, Vol. 27, No. 5, 693-711, 1992.
83. **S. H. Yueh**, J. A. Kong, and R. T. Shin, "External Calibration of Polarimetric Radars Using Point and Distributed Targets," *Journal of Electromagnetic Waves and Applications*, Vol. 6, No. 7, 921-941, 1992.
84. **S. H. Yueh**, J. A. Kong, J. K. Jao, R. T. Shin, and T. Le Toan, "Branching Model for Vegetation," *IEEE Trans. on Geoscience and Remote Sensing*, Vol. 30, No. 2, 390-402, 1992.
85. N. C. Chu, J. A. Kong, **S. H. Yueh**, S. V. Nghiem, J. G. Fleischman, S. Ayasli, and R. T. Shin, "Variance of phase fluctuations of waves propagating through a random medium," *Journal of Electromagnetic Waves and Applications*, Vol. 6, No. 2, 169-197, 1992.
86. M. E. Veysoglu, **S. H. Yueh**, R. T. Shin, and J. A. Kong, "Polarimetric passive remote sensing of periodic surfaces," *Journal of Electromagnetic Waves and Applications*, Vol. 5, No. 3, 267-280, 1991.
87. **S. H. Yueh** and J. A. Kong, "Analysis of diffraction from chiral gratings," *Journal of Electromagnetic Waves and Applications*, Vol. 5, No. 7, 701-714, 1991.
88. **S. H. Yueh**, J. A. Kong, J. K. Jao, R. T. Shin, H. A. Zebker, and T. Le Toan, "K-distribution and multi-frequency polarimetric terrain radar clutter," *Journal of Electromagnetic Waves and Applications*, Vol. 5, No. 1, 1-15, 1991.
89. **S. H. Yueh**, R. T. Shin, and J. A. Kong, "Scattering from Randomly Oriented Scatterers with Strong Permittivity Fluctuations," *Journal of Electromagnetic Waves and Applications*, Vol. 4, No. 10, 983-1004, 1990.
90. **H. A. Yueh**, J. A. Kong, R. M. Barnes, and R. T. Shin, "Calibration of Polarimetric Radar Using In-scene Reflectors," *Journal of Electromagnetic Waves and Applications*, Vol. 4, No. 1, 27-49, 1990.
91. **H. A. Yueh**, J. A. Kong, J. K. Jao, R. T. Shin, and L. M. Novak, "K-distribution and Polarimetric Terrain Radar Clutter," *Journal of Electromagnetic Waves and Applications*, Vol. 3, No. 8, 747-768, 1989.
92. H. Lim, A. A. Swartz, **H. A. Yueh**, J. A. Kong, R. T. Shin, and J. J. Van Zyl, "Classification of earth terrain using synthetic aperture radar images," *Journal of Geophysical Research*, Vol. 94, No. B6, 7049-7057, June 10, 1989.
93. A. A. Swartz, **H. A. Yueh**, J. A. Kong, L. M. Novak, and R. T. Shin, "The optimal polarizations for achieving maximum contrast in radar polarimetry," *Journal of Geophysical Research*, Vol. 93, No. B12, 15235 -- 15260, December 1988.

94. **H. A. Yueh**, A. A. Swartz, J. A. Kong, R. T. Shin, and L. M. Novak, "Bayes classification of terrain cover using normalized polarimetric data," *Journal of Geophysical Research*, Vol.93, No.B12, 15261-15267, December 1988.
95. J. A. Kong, A. A. Swartz, **H. A. Yueh**, L. M. Novak, and R. T. Shin, "Identification of Terrain Cover Using the Optimum Polarimetric Classifier," *Journal of Electromagnetic Waves and Applications*, Vol.2, No.2, 171-194, 1988.
96. **H. A. Yueh**, R. T. Shin, and J. A. Kong, "Scattering of electromagnetic waves from a periodic surface with random roughness," *Journal of Applied Physics*, Vol.64, No.4, 1657-1670, August 1988.