JOHN R. SCHOTT, Ph.D.

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EDUCATION:

- **Ph.D**. Environmental Science, Remote Sensing, 1980, State University of New York, College of Environmental Science & Forestry (SUNYCESF), Syracuse University
- Graduate Studies, Business Administration, 1979 to 1980, Canisius College
- M.S. Environmental Engineering, Remote Sensing, 1978, SUNYCESF, Syracuse University
- Graduate Studies, Biophysics, 1974 to1975, University of Buffalo
- B.S. Physics/Sociology, Magna cum Laude, 1973, Canisius College

PROFESSIONAL APPOINTMENTS:

- **Professor Emeritus,** Carlson Center for Imaging Science, Rochester Institute of Technology, [2017 to present]
- **Research Professor**, Carlson Center for Imaging Science, Rochester Institute of Technology, [2013 to 2017]
- **Professor**, Carlson Center for Imaging Science, Rochester Institute of Technology, [1980 to 2013]
- **Director**, Digital Imaging and Remote Sensing Laboratory, Rochester Institute of Technology, [1980 to 2008]
- **Board Member**, Director of National Intelligence's (DNI's) Intelligence Science Board [2004 to 2008]
- Adjunct Professor, State University of New York (SUNY) at Buffalo, Civil Engineering [1980 to 1982]
- Principal Physicist, Calspan (formerly Cornell Aeronautical Laboratories), [1972 to 1981]

Awards and Honors

- Fellow SPIE
- ERDAS Award for best scientific paper in remote sensing 2011.
- John I. Davidson President's award for best scientific paper 2011.
- Team member, 2014 Pecora Team award to Landsat Science team.
- Team member, 2013 Robert H. Goddard Award for Science to Landsat Cal/Val team.
- RIT Presidential Award for Scholarship 2007.
- RIT Trustees Scholarship Award 2009.
- Inducted into RIT Innovation Hall of Fame 2013.
- RIT faculty retiree of the year 2017.

RESEARCH INTERESTS:

Dr. Schott has broad research and development experience in advanced technology for solving problems related to imaging science and remote sensing. He has served as the principal investigator on numerous research programs for both governmental and private sectors, including serving as a principal investigator for NASA's "Landsat 7 Science Team" and USGS's "Landsat Science Team". His research has led to over 100 technical publications, including a text/ reference book on Remote Sensing, as well as co-inventor status on two patents. Dr. Schott tought undergraduate and graduate level courses on topics including remote sensing, digital image processing, and radiometry. Dr. Schott also served as a member of the Intelligence Science Board which advises the intelligence community and the Director of National Intelligence.

Dr. Schott has conducted extensive research on the effects of atmospheric transmission on visible and infrared detectors aboard remote sensing platforms. This work led to development of techniques for removal of atmospheric and background effects from the signal recorded by these sensors. Dr. Schott has extensive experience in the design, development and use of numerous electro-optical instruments. His work included the development of RIT's airborne imaging spectrometer and modeling of visible longwave infrared target-to-background signatures for space-based sensing. This work led to the development of visible and thermal infrared synthetic image generation tools embodied in the DIRSIG hyperspectral simulation model.

Dr. Schott has conducted research in water quality using remote sensing platforms. This work involved the collection, correlation and analysis of in-situ, laboratory, aerial and satellite data. He has also investigated the utility of remote sensing in assessing and quantifying vegetation stress induced by air pollutants and insect infestation. These efforts involved planning, direction and participation in field surveys as well as data analysis and reporting. Dr. Schott's work in terrain classification has involved the development and demonstration of new preprocessing classification algorithms designed to minimize ground data requirements, improving significantly the cost effectiveness of such surveys. His image processing work has concentrated on development of techniques for optimizing monochrome image segmentation using texture features and on fusion of multi-sensor-multi resolution image data. Most recently he has focused on the development of physics-based, hyperspectral exploitation algorithms, improvements in full spectrum scene simulation, methods for evaluating the performance of multi-segmented optical imaging systems, and a rewrite of his text book titled; Remote Sensing: The Image Chain Approach.

BOOKS:

- 1.1 Schott, J.R., Coming of Age: The Center for Imaging Science at the Rochester Institute of Technology, RIT Press, Rochester, NY, ISBN: 978-1-939125-65-1, 2019
- 1.2 Schott, J. R., <u>Fundamentals of Polarimetric Remote Sensing</u>, 1st Edition, SPIE Press Book, Vol.: TT81, 268 pages, Bellingham, Washington, ISBN: 9780819475343, 2009.
- 1.3 Schott, J.R., <u>Remote Sensing: The Image Chain Approach</u>, 2nd Edition, Oxford University Press, New York, New York, 2007.
- 1.4 Schott, J.R., <u>Remote Sensing: The Image Chain Approach</u>, 1st Edition, Oxford University Press, New York, New York, 1997.

BOOK CHAPTERS:

- 2.1 Doelling, D., Helder, D., Schott, J., Stone, T., & Pinto, C. T., Vicarious Calibration and Validation. In S. Liang (Ed.), Comprehensive Remote Sensing,vol. 1, pp. 475–518. Oxford: Elsevier ISBN: 9780128032206, 2017
- 2.2 Kerekes, J.P, and Schott, J.R.; "Hyperspectral Imaging Systems", <u>Hyperspectral Data</u> <u>Exploitation: Theory and Applications</u>, Chein-I Chang, Editor, John Wiley and Sons, Hoboken, New Jersey, 2007.
- 2.3 Schott, J.R., Brown, S.D., Barsi, J.A., "Calibration of Thermal Infrared (TIR) Sensors", 2nd Edition, <u>Thermal Remote Sensing in Land Surface Processes</u>, D. Quattrochi & J. Luvall (Eds.), CRC-Press, Boca Raton, Florida, 2004.
- 2.4 Schott, J.R., and Barsi, J.A., "Radiometry for Remote Sensing", *Encyclopedia of Optical Engineering, Volume 3*, pp. 2309-2318. R.G. Driggers (Ed.), Marcel Dekker, New York, New York, United States. ISBN: 0-8247-4250-8, 2003.
- 2.5 Schott, J.R., Brown, S.D., Barsi, J.A., Book Chapter, "Calibration of Thermal Infrared (TIR) Sensors", 1st Edition, Chapter 10, <u>Thermal Remote Sensing in Land Surface Processes</u>, Eds. Dale Quattrochi and Jeffrey Luvall, Ann Arbor Press, Chelsea, Michigan, 1999.
- 2.6 Schott, J.R., Contribution to <u>The Focal Encyclopedia of Photography</u>, 3rd Edition, Edited by L. Stroebel and R. Zakia, Focal Press, Boston, Massachusetts, 1993.
- 2.7 Schott, J.R., Raqueño, R., Moos, S., Nanda, N., "4-Dimensional cardiac blood flow analysis using color Doppler echocardiography", <u>Atlas of Color Doppler Echocardiography</u>, Chapter 32, Lea and Febiger, Philadelphia, Pennsylvania, 1988.
- 2.8 Schott J.R. and Henderson-Sellers, A., "Radiation, The Atmosphere and Satellite Sensors", <u>Satellite Sensing of a Cloudy Atmosphere</u>, Edited by A. Henderson-Sellers, Taylor & Francis, London and Philadelphia, 1984.

JOURNAL ARTICLES:

- 3.1 Wulder, M. A., Loveland T. R., ..., Schott, J. R., "Current status of Landsat program, science, and applications", *Remote Sensing of Environment*, Volume 225, 2019, Pages 127-147, ISSN 0034-4257, https://doi.org/10.1016/j.rse.2019.02.015.
- 3.2 Rengarajan, R.; Schott, J.R. Evaluation of Sensor and Environmental Factors Impacting the Use of Multiple Sensor Data for Time-Series Applications. *Remote Sens.* **2018**, 10(11), 1678; https://doi:10.3390/rs10111678
- 3.3 Laraby, K., Schott. J.R., "Uncertainty estimation method and Landsat 7 global validation for the Landsat surface temperature product", *Remote Sensing of Environment*, vol. 216, pp. 472-481, 2018, https://doi.org/10.1016/j.rse.2018.06.026
- 3.4 N. K. Malakar, G. C. Hulley, S. J. Hook, K. Laraby, M. Cook and J. R. Schott, "An Operational Land Surface Temperature Product for Landsat Thermal Data: Methodology and Validation," in *IEEE Transactions on Geoscience and Remote Sensing*. doi: 10.1109/TGRS.2018.2824828
- 3.5 Rengarajan, R. and Schott, J. R. "Modeling and Simulation of Deciduous Forest Canopy and Anisotropic Reflectance Properties Using the Digital Image and Remote Sensing Image Generation (DIRSIG) Tool", *Selected Topics in Applied Earth Observations and*

Remote Sensing, IEEE Journal of, vol ,no. , DOI:10. <u>1109/JSTARS.2017.2751539</u>, September, 2017

- 3.6 Salvaggio, P.S., Schott, J.R., McKowen, D.M, <u>"Validation of Modeled Sparse Aperture</u> <u>Post-Processing Artifacts</u>", *Applied Optics 56, 761-770*", April, 2017..
- 3.7 Pahlevan, N., Schott, J.R., Franz, B.A., Zibordi, G., Markham, B., Bailey, S., Schaaf, C.B., Ondrusek, S.G., Strait, C.M., <u>"Landsat 8 Remote Sensing Reflectance (Rrs)</u> <u>Products: Evaluations, Intercomparisons, and Enhancements"</u>, *Remote Sensing of Environment, Vol. 190*, pp. 289-301, March 1, 2017.
- 3.8 Garma, J.D., Schott, J.R., Fiete, R.D., Qiao, J., McKeown, <u>"Image Quality Modeling and Characterization of Nyquist-Sampled Framing Sensors with Operational Considerations for Remote Sensing"</u>, *Optical Engineering 56(1), 013102*, Jan. 2, 2017.
- 3.9 Concha, J.A., Schott, J.R., "<u>Retrieval of Color Producing Agents in Case 2 Waters Using Landsat 8</u>", *Remote Sensing of Environment*, <u>http://dx.doi.org/10.1016/j.rse.2016.03.018</u>, April 13, 2016.
- 3.10 Schott, J.R., Gerace, A., Woodcock, C.E., Wang, S., Zhu, Z., Wynne, R.H., Blinn, C.E., <u>"The Impact of Improved Signal-to-Noise Ratios on Algorithm Performance: Case</u> <u>Studies for Landsat Class Instruments"</u>, *Remote Sensing of Environment*, <u>http://dx.doi.org/10.1016/j.rse.2016.04.015</u>, May 13, 2016.
- 3.11 Salvaggio, P.S., Schott, J.R., McKeown, D.M., <u>"Genetic Apertures:an Improved Sparse Aperture Design Framework"</u>, *Applied Optics*, 55,12, pp. 3182-3191, Dec. 2016.
- 3.12 Pahlevan, N., Lee, Z., Wei, J., Schaaf, C.B., Berk, A., Schott, J.R., <u>"On Orbit Radiometric Characterization of OLI (Landsat-8) for Applications in Aquatic Remote Sensing</u>", *Remote Sensing of Environment*, 154, pp. 272-284, Nov. 2014.
- 3.13 Barsi, J., Hook, S., Raqueno, N., Markham, B., Radocinski, R., Schott, J.R., <u>"Landsat-8</u> <u>Thermal Infrared Sensor (TIRS) Vicarious Radiometric Calibration", *Remote Sensing*, 6, 11, pp. 11607-11626, Nov. 2014.</u>
- 3.14 Cook, M., Mandel, J., Raqueno, N., Schott, J.R., "Development of an Operational Calibration Methodology for the Landsat Thermal Data Archive and Initial Testing of the Atmospheric Compensation Component of a Land Surface Temperature (LST) Product from the Archive", *Remote Sensing*, 6, 11, pp. 11244-11266, Nov. 2014.
- 3.15 Gerace, A.; Gartley, M., Montanaro, M., Schott, J.R., "<u>An Analysis of the Side Slither</u> <u>On-Orbit Calibration Technique Using the DIRSIG Model</u>", *Remote Sensing*, 6, 11, pp. 10523-10545, Oct. 2014.
- 3.16 Roy, D.P., Wulder, M.A...; Schott, J.R., "Landsat-8 Science and Product Vision for <u>Terrestrial Global Change Research</u>, *Remote Sensing of Environment*, 145, pp. 154-172, April 2014. doi.org/10.1016/j.rse.2014.02.001
- 3.17 Pahlevan, N., Zhongping, L., Chuanmin, H., Schott, J.R., "Diurnal Remote Sensing of Coastal/Oceanic Waters: A Radiometric Analysis for Geostationary Coastal and Air Pollution Events, Applied Optics, 53, pp. 648-665, Feb. 2014.
- 3.18 Gerace A.D, Schott J.R, Nevins R; "Increased potential to monitor water quality in the near-shore environment with Landsat's next-generation satellite." Journal of Applied Remote Sensing Vol 7; pp. 073558-073558. May 2013.
- 3.19 Gartley, M.; Schott, J., "Serendipitous Imaging of Space Objects With the Advanced Land Imager," Selected Topics in Applied Earth Observations and Remote Sensing, IEEE Journal of, vol.6, no.2, pp.440,445, April 2013.

- 3.20 Pahlevan, N.; Schott, J. R.; , "Leveraging EO-1 to Evaluate Capability of New Generation of Landsat Sensors for Coastal/Inland Water Studies," Selected Topics in Applied Earth Observations and Remote Sensing, IEEE Journal of, Vol.PP, no.99, pp.1-15, 2013.
- 3.21 Schott, J.; Gerace, A.; Brown, S.; Gartley, M.; Montanaro, M.; Reuter, D.C., "<u>Simulation of Image Performance Characteristics of the Landsat Data Continuity Mission (LDCM)</u> Thermal Infrared Sensor (TIRS)." *Remote Sensing*. Vol.4, pp2477-2491, August 2012.
- 3.22 Pahlevan, N., Schott, J. R., "Characterizing the relative calibration of Landsat-7 (ETM+) visible bands with Terra (MODIS) over clear waters: The implications for monitoring water resources". *Remote Sensing of Environment*, Vol. 125, pp167-180, October 2012.
- 3.23 Pahlevan, N., Garrett, A., Gerace, A. D. and Schott, J. R. (2012). <u>"Integrating Landsat 7</u> Imagery with Physics-based Models for Quantitative Mapping of Coastal Waters near <u>River Discharges</u>". *Photogrammetric Engineering and Remote Sensing PE&RS*, Vol. 78, pp1163-1174, November 2012.
- 3.24 Schott J.R., Hook S.J., Barsi J.A., Markham B.L., Miller J., Padula F.P., Raqueño N.G., "Thermal Infrared Radiometric Calibration of the Entire Landsat 4, 5, and 7 Archive (1982-2010)". *Remote Sensing of the Environment*, Vol. 122, pp.41-49, July 2012.
- 3.25 Padula, F.P., Schott, J.R., Barsi, J.A., Raqueño, N.G., and Hook, S.J., "<u>Calibration of Landsat 5 Thermal Infrared Channel: updated calibration history and assessment of the errors associated with the methodology</u>", *Canadian Journal of Remote Sensing*, Vol. 36, No. 5, pp. 617-630, June 2011.
- 3.26 Flusche, B.M., Gartley, M.G., Schott, J.R., "Assessing the impact of spectral and polarimetric data fusion via simulation to support multimodal sensor system design requirements", *Journal of Applied Remote Sensing*, Vol. 4, 043562, November 2010.
- 3.27 Padula, F.P. and Schott, J.R., "Historic Calibration of the Thermal Infrared Band of Landsat-5 TM", PE&RS, Vol. 76, Number 11, pp. 1225-1238, November 2010.
- 3.28 Bartlett, B.D.; Gartley, M.G.; Messinger, D.W.; Salvaggio, C.; Schott, J.R., "Spectropolarimetric bidirectional reflectance distribution function determination of in-scene materials and its use in target detection applications", *Journal of Applied Remote Sensing*, Vol. 4, 043552, pp. 1-21, November 2010.
- 3.29 Flusche, B.M., Gartley, M.G., Schott, J.R, "Defining a process to fuse polarimetric and spectral data for target detection and explore the trade space via simulation", *Journal of Applied Remote Sensing*, Vol. 4, 043550, October 2010.
- 3.30 Bartlett, B., Schott, J.R., "<u>Atmospheric compensation in the presence of clouds: an</u> <u>adaptive empirical line method (AELM) approach</u>", *Journal of Applied Remote Sensing*, Vol. 3, 033507, pp. 1-16, February 2009.
- 3.31 Foster, M., Schott, J.R., Messinger, D.W., "Spin-Image Target Detection Algorithm Applied to Low Density 3D Point Clouds", *Journal of Applied Remote Sensing*, Vol. 2, 023539, pp. 1 – 15, September 2008.
- 3.32 Barsi, J.A., Hook, S.J., Schott, J.R., Raqueño, N.G., Markham, B.L., "Landsat 5 Thematic Mapper Thermal Band Calibration Update", *IEEE GeoScience and Remote Sensing Letters*, Vol. 4, Issue 4, pp. 552-555, ISSN 1545-598X, October 2007.
- 3.33 West, J., Messinger, D.W., Schott, J.R., "A Comparative Evaluation of Background Characterization Techniques for Hyperspectral Unstructured Matched Filter Target Detection", *Journal of Applied Remote Sensing*, Vol. 1, 013520, pp. 1–15, 13 July 2007.

- 3.34 Schott, J.R., and Kerekes, J.P.; "University Profile: Rochester Institute of Technology Digital Imaging and Remote Sensing Laboratory", *IEEE GeoScience and Remote Sensing Society Newsletter*, Issue #137, pp. 9-15, ISSN 0161-7869, December 2005.
- 3.35 Schott, J. R., "Spectral data adds a new dimension to remote imaging of Earth", *Laser Focus World*, Vol. 40, No. 8, pp. 76-86, ISSN: 1043-8092, August 2004.
- 3.36 Teillet, P.M.; Helder, D.L.; Ruggles, T.A.; Landry, R.; Ahern, F.J.; Higgs, N.J.; Barsi, J.; Chander, G.; Markham, B.L.; Barker, J.L.; Thome, K.J.; Schott, J.R.; Palluconi, F.D., "A definitive calibration record for the Landsat-5 Thematic Mapper anchored to the Landsat-7 radiometric scale", *Canadian Journal of Remote Sensing*, Vol. 30, No. 4, pp. 631-643, August 2004.
- 3.37 Barsi, J.A., Schott, J.R., Palluconi, F.D., Helder, D.L., Markham, B.L., Chander, G., and O'Donnell, E.M., "Landsat TM and ETM+ Thermal Band Calibration", *Canadian Journal of Remote Sensing*, Vol. 29, No. 2 pp. 141-153, April 2003.
- 3.38 Vodacek, A., Kremens, R., Fordham, A., VanGorden, S., Luisi, D., Schott, J.R., and Latham, D., "Remote optical detection of biomass burning using a potassium emission signature", *International Journal of Remote Sensing*, Vol. 23, No. 13, pp. 2721-2726, July 2002.
- 3.39 Sanders, L.C., Schott, J.R., Raqueño, R.V., "A VNIR/SWIR atmospheric correction algorithm for hyperspectral imagery with adjacency effect", *Remote Sensing of Environment* Vol. 78, pp. 252-263, December 2001.
- 3.40 Schott, J.R., Barsi, J.A., Nordgren, B.L., Raqueño, N.G., de Alwis, D. "Calibration of Landsat Thermal Data and Application to Water Resource Studies", *Remote Sensing of Environment* Vol. 78, p. 108-117, October 2001.
- 3.41 Kuo, S.D., Schott, J.R. Chang, C. "Synthetic image generation of chemical plumes for hyperspectral applications", *Optical Engineering*, Vol. 39, No. 4, pp. 1047-1056, April 2000.
- 3.42 Robinson, G.D., Gross, H.N., Schott, J.R., "Evaluation of two applications of spectral mixing models to image fusion", *Remote Sensing of Environment*, Vol. 71, Issue 3, pp. 272-281, March 2000.
- 3.43 Schott, J.R., Brown, S.D., Raqueño, R.V., Gross, H.N., Robinson, G. "<u>An advanced synthetic image generation model and its application to multi/hyperspectral algorithm development</u>", *Canadian Journal of Remote Sensing*, Vol. 25, No.2, pp. 99-111, June 1999.
- 3.44 Gross, H.N. and Schott, J.R., "Application of spectral mixture analysis and image fusion techniques for image sharpening", *Remote Sensing of Environment*, Vol. 63, No. 2, pp. 85-94, February 1998.
- 3.45 Feng, X., Schott, J.R., Gallagher, T.W., "Modeling the performance of a high-speed scan mirror for an airborne line scanner", *Optical Engineering*, Vol. 33, No. 4, pp. 1214-1222, April 1994.
- 3.46 Feng, X., Schott, J.R., Gallagher, T., "<u>Comparison of methods for generation of absolute</u> reflectance factor values for bidirectional reflectance-distribution function studies", *Applied Optics*, Vol. 32, No. 7, pp. 1234-1242, March 1993.
- 3.47 Munechika, C.K., Warnick, J.S., Salvaggio, C., Schott, J.R., "Resolution enhancement of multispectral image data by scene merger for improved classification accuracy", *Photogrammetric Engineering and Remote Sensing*, Vol. 59, No. 1, pp. 67-72, January 1993.

- 3.48 Schott, J.R., Raqueño, R., Salvaggio, C., "Incorporation of a time-dependent thermodynamic model and a radiation propagation model into infrared 3-D synthetic image generation", *Journal of Optical Engineering*, Vol. 31, No. 7, pp. 1505-1516, July 1992.
- 3.49 Schott, J.R., "Image processing of thermal infrared images", *Photogrammetric Engineering and Remote Sensing*, Vol. 55, No. 9, pp. 1311-1321, September 1989.
- 3.50 Schott, J.R., "Remote sensing of the earth: A synoptic view", *Physics Today*, Special issue on the Physics of Imaging, Vol. 42, No. 9, pp. 72-79, September, 1989.
- 3.51 Schott, J.R., C. Salvaggio, W.J. Volchok, "Radiometric scene normalization using pseudo-invariant features", *Remote Sensing of Environment*, Vol. 26, No. 1, pp. 1-16, October 1988.
- 3.52 Schott, J.R., Raqueño, R., Moos, S., Storey, O., Ghosh, A., Nanda, N., "Successful merging of 3-dimensional color flow velocities and 3-dimensional reconstruction of the left ventricle", *Circulation 76* (Suppl. IV), IV-24, 1987.
- 3.53 Ghosh, A., Schott, J.R., Moos, S., Nanda, N.C., "New methods of displaying 3-dimensional echo images", *Clinical Research*, Vol. 35, 280A, 1987.
- 3.54 Ghosh, A., Schott, J.R., Moos, S., Nanda, N., "Merging color Doppler imaging with 4dimensional echocardiogram reconstruction", *Journal of American College of Cardiology*, Vol. 9, 111A, 1987.
- 3.55 Byrnes, A.E. and Schott, J.R., "Correction of thermal imagery for atmospheric effects using aircraft measurement and atmospheric modeling techniques", *Applied Optics*, Vol. 25, No. 15, pp. 2563-2570, August 1986.
- 3.56 Schott, J.R., "The role of remotely sensed data in studies of the thermal bar", *Remote Sensing Reviews*, Vol. 1, Issue 2, pp. 341-358, May 1986.
- 3.57 Schott, J.R., Volchok, W.J., Moos, S., Sunni, S., Ghosh, A., Nanda, N., "Comparison of digital image processing algorithms for enhancement of boundaries in 2-dimensional echocardiography", *Clinical Research*, Vol. 34, No. 2, p. 342A, April 1986.
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- 3.60 Schott, J.R., "An application of Heat Capacity Mapping Mission data-thermal bar studies of Lake Ontario", *Journal of Applied Photographic Engineering*, Vol. 8, No. 3, pp. 117-120, 1982.
- 3.61 Schott, J.R., "Temperature measurement of cooling water discharged from power plants", *Photogrammetric Engineering and Remote Sensing*, Vol. 45, No. 6, pp. 753-761, June 1979.
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CONFERENCE PROCEEDINGS:

- 4.1 Wang, Y.,. Ientilucci, E.J., Raqueno, N.A., Schott, J.R.,"<u>Landsat 8 TIRS calibration with</u> <u>external sensors</u>," *Proc. SPIE 10402, Earth Observing Systems XXII, 104021H* (5 September 2017)
- 4.2 Barsi, J.A., Markham B.L., Montanaro, M., Morfitt, R., Hook, S.J., Schott, J.R., Raqueno, N., Gerace, A., "Landsat-8 TIRS thermal radiometric calibration status," *Proc. SPIE 10402, 104021G* (5 September 2017)
- 4.3 Cui, Z., Kerekes,J., Schott J.R. "<u>Validation of landsat-8 OLI image simulation</u>", Geoscience and Remote Sensing Symposium (IGARSS), 2017 IEEE International, pp 3186-3189, 7/23/2017
- 4.4 Rengarajan, R., Goodenough, A.A., Schott, J.R. <u>"Simulating the Directional, Spectral and Textural Properties of a Large-Scale Scene at High Resolution using a MODIS BRDF</u> <u>Product</u>", *Proceedings of SPIE 10000, Sensors, Systems, and Next-Generation Satellites* XX 1000000Y, Oct. 19, 2016.
- 4.5 Pahlevan, N., Schott, J.R., Zibordi, G., "Enhancing Moderate-Resolution Ocean Color Products Over Coastal/Inland Waters", *Proceedings of SPIE 9999, Remote Sensing of the Ocean, Sea Ice, Coastal Waters and Large Water Regions 2016, 99990J*, Oct. 19, 2016.
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- 4.7 Rengarajan, R., Schott, J.R., <u>"Modeling Forest Defoliation Using Simulated BRDF and Assessing Its Effect on Reflectance and Sensor Reaching Radiance</u>", *Proceedings of SPIE 9975, Remote Sensing and Modeling of Ecosystems for Sustainability XIII, 997503*, Sept. 19, 2016.
- 4.8 Rajagopalan, R., Schott, J.R., "Modeling of Forest Canopy BRDF Using DIRSIG", Proceedings of SPIE 9840, Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery XXII, 98401F, Nat 17, 2016.
- 4.9 Laraby, K.G., Schott, J.R., Raqueno, N., "Developing a Confidence Metric for the Landsat Land Surface Temperature Product", *Proceedings of SPIE 9840, Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery XXII*, May 17, 2016.
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- 4.11 Concha, J.A., Schott, J.R., "Atmospheric Correction for Landsat 8 Over Case 2 Waters", *Proceedings of SPIE 9607, Earth Observing Systems XX, 96070R*, Sep. 8, 2015.
- 4.12 Cui, Z., Montanaro, M., Gerace, A., Schott, J.R., Markham, B., "Requirement Sensitivity Studies for a Future Landsat Sensor", *Proceedings of SPIE 9607, Earth Observing Systems XX, 96070S*, Sep. 8, 2015.
- 4.13 Salvaggio, P.S., Schott, J.R., McKeown, D.M., "Laboratory Validation of a Sparse Aperture Image Quality Model", *Proceedings of SPIE 9617, Unconventional Imaging and Wavefront Sensing 2015, 961708*, Sep. 4, 2015.

- 4.14 Gerace, A.D., Raqueno, N., Lentilucci, E., Raqueno, R., Lunsford, A.W., Schott, J.R., <u>"Chasing the TIRS Ghosts: Calibrating the Landsat 8 Thermal Bands"</u> Earth Observing Systems XIX", *SPIE Optical Engineering + Applications*, 9218, pp. 92181A-92181A-20, San Diego, California, Oct. 2014.
- 4.15 Pahlevan, N., Wei, J., Schaaf, C.B., Schott, J.R., "Evaluating Radiometric Sensitivity of Landsat 8 over Coastal/Inland Waters", *IGARSS 2014*, pp. 1393-1396, Quebec, Canada, July 2014.
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