

Curriculum Vitae (as of OCT-2019)

PERSONAL DATA

Name: Juri Knjazihhin (Yuri Knyazikhin in journal articles)
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EDUCATION

Ph.D in Physics and Mathematics (1985), Tbilisi, the N.I. Muskhelishvili Institute of Computational Mathematics, the Georgian National Academy of Sciences, Dissertation: The Method of Discrete Ordinates and Linear-Algebraic Model of the Radiative Transfer.
M.S. in Applied Mathematics (1978), Department of Mathematics, Tartu State University, Tartu, Estonia.

EMPLOYMENT

Jan. 2003-present	Research Professor: Department of Earth and Environment, Boston University;
Dec. 1996-Dec.2002	Research Associate Professor: Department of Geography, Boston University;
Aug. 1992-Dec. 1996	Senior Lecture/Research Scientist: Institute of Bioclimatology, Georg August University of Göttingen, Germany;
Oct. 1991-Aug. 1992	Alexander von Humboldt Foundation Fellow: Institute of Bioclimatology, Georg August University of Göttingen, Germany;
July 1990-Oct. 1991	Senior Lecture/Research Scientist: Institute of Bioclimatology, Georg August University of Göttingen, Germany;
March 1986-July 1990	Senior Lecturer/Research Scientist: Department of Geophysics, Tartu University, Tartu, Estonia;
July 1978-March 1986	Lecturer /Research Scientist: Laboratory of Space Research, Institute of Astrophysics and Atmospheric Physics, Tartu, Estonia.

RESEARCH EXPERIENCE

Passive and active remote sensing: algorithms, data analyses and the use of data in models

3D radiative transfer in vegetation canopies, atmosphere and clouds

Cloud-vegetation interaction

Ground-based radiation measurements, micro-processes in forests.

Numerical Mathematics.

PROFESSIONAL ACTIVITIES/SERVICE (RECENT AND CURRENT)

EOS MODIS Associate Science Team Member.

EOS MISR Science Team Member.

DoE ARM Science Team Member.

NASA LCLUC Science Team Member

DSCOVR EPIC Earth Science Algorithm Team Member

NASA Group Achievement Award for MISR in recognition of outstanding skill, teamwork, and dedication leading to successful development, deployment, and operation of the MISR instrument, science, and data systems that constitute a unique new multi-angle imaging experiment.

NASA Goddard Space Flight Center Group Achievement Award for outstanding team work on the Earth Observing System (EOS) Aqua Mission Team in recognition of the talent, care, energy and devotion that this outstanding team of civil servants, contractors, scientists and academia put into the Aqua Mission.

Research results on cloud drop clustering supported by the NASA Radiation and DoE ARM Programs were highlighted in the FY07 "Our Changing Planet" (annual report of the US Climate Change Science Program).

PEER REFEREE

Journals: Remote Sensing of Environment; Journal of Geophysical Research (Atmospheres); Geophysical Research Letters; IEEE Transactions on Geoscience and Remote Sensing; International Journal of Remote Sensing; IEEE Geoscience and Remote Sensing Letters, Applied Numerical Mathematics, Agricultural and Forest Meteorology, Agronomie; Journal of Theoretical Biology; Proceedings of the Royal Society A, Ecological Modelling, Journal of Quantitative Spectroscopy & Radiative Transfer, International Journal of Applied Earth Observation and Geoinformation, Journal of the atmospheric Sciences

Agencies: National Aeronautics and Space Administration, National Science Foundation; European Space Agency

TEACHING

GG645: Physical model in remote sensing (1999; 2002; 2004; 2006; 2009; 2012, 2013,2015,2017,2019)

GRADUATE STUDENT GUIDANCE

The total number of graduate students advised is 23. They are: Yu Zhang, Yuhong Tian, Nikolai Shabanov, Seth Hoffmann, Yujie Wang, Jiannan Hu, Svetlana Kotchenova, Dong Huang, Wenze Yang, Bin Tan, Sampo Smolander (Finland), Miina Rautiainen (Finland); Mitchell Schull, Sangram Ganguly, Arindam Samanta, Liang Xu, Pedro Latorre (Spain), Yan Yang, Jian Bi, Bin Yang (Peking University), Wanjuan Song (Beijing Normal University), Kai Yan (Beijing Normal University), Taejin Park, Chi Chen, Yuanheng Sun (Peking University).

CURRENT FUNDED PROJECTS

1. Look-Up-Table Based Approach for the Estimation of Global Leaf Area Index and Fraction of Absorbed PAR from MISR Data. JPL, Knyazikhin, PI, 05-2014 to 03-2020.
2. Global LAI-FPAR Earth System Data Records from Suomi VIIRS to Extend the EOS MODIS Time Series. Myneni, PI; Knyazikhin, Co-PI; NNX14AP80A, NASA, D. E. Wickland, 202-358-0245, Diane.E.Wickland@nasa.gov, 09-2014 to 12-2019.
3. Monitoring 3D Canopy Structure and Leaf Level Physiological Processes Using Hyperspectral, Multiangle and Polarimetric Data, Knyazikhin, PI, NNX15AR03G, NASA, L. Tsaoussi, 202-358-4471, lucia.s.tsaoussi@nasa.gov: 09-2015 to 08-2019.
4. DSCOVR EPPIC VESDR Product: Algorithm Refinement, Validation and Scientific Exploration, Knyazikhin, PI; 80NSSC19K0762, NASA, R. Eckman, 202-358-2567, richard.s.eckman@nasa.gov, 05-2019 to 04-2022.
5. Vegetation Hot Spot Signatures from Synergy of EPIC-DSCOVR and EOS/NPP Sensors to Monitor Changes and Biophysical Processes of Global Forests, Myneni, PI; Knyazikhin, Co-PI, 80NSSC19K0760, NASA, R. Eckman, 202-358-2567, richard.s.eckman@nasa.gov, 05-2019 to 04-2022.

ISI CITATION RECORD (all data bases): Sum of the times cited: 9,041. Times Cited in Year 2016, 2017 and 2018: 711, 632 and 851. Average Citations per Paper: 72.33. Average Citations per Year: 301.37; h-index: 44.

PUBLICATION SUMMARY: 130+ peer-reviewed journal articles; 2 books; 5 book chapters

1. Wen, G., Marshak, A., Song, W., **Knyazikhin, Y.**, Möttus, M., & Wu, D. (2019). A Relationship Between Blue and Near-IR Global Spectral Reflectance and the Response of Global Average Reflectance to Change in Cloud Cover Observed From EPIC. *Earth and Space Science*, 6, 1416-1429.
2. Marshak, A., Herman, J., Szabo, A., Blank, K., Carn, S., Cede, A., Geogdzhayev, I., Huang, D., Huang, L.-K., **Knyazikhin, Y.**, Kowalewski, M., Krotkov, N., Lyapustin, A., McPeters, R., Meyer, K., Torres, O., & Yang, Y. (2018). Earth Observations from DSCOVR/EPIC Instrument. *Bulletin of the American Meteorological Society*, DOI: 10.1175/bams-d-17-0223.1
3. Xu*, B., Li, J., Park*, T., Liu, Q., Zeng, Y., Yin, G., Zhao, J., Fan, W., Yang, L., **Knyazikhin, Y.**, & Myneni, R.B. (2018). An integrated method for validating long-term leaf area index products using global networks of site-based measurements. *Remote Sensing of Environment*, 209, 134-151
4. Yang, W., Marshak, A., Várnai, T., & **Knyazikhin, Y.** (2018). EPIC Spectral Observations of Variability in Earth's Global Reflectance. *Remote Sensing*, 10, 254
5. Xu*, B., Park*, T., Yan*, K., Chen*, C., Zeng, Y., Song*, W., Yin, G., Li, J., Liu, Q., **Knyazikhin, Y.**, & Myneni, R. (2018). Analysis of Global LAI/FPAR Products from VIIRS and MODIS Sensors for Spatio-Temporal Consistency and Uncertainty from 2012–2016. *Forests*, 9, 73
6. Yan*, K., Park*, T., Chen, C., Xu*, B.D., Song*, W.J., Yang*, B., Zeng, Y.L., Liu, Z., Yan, G.J., **Knyazikhin, Y.**, & Myneni, R.B. (2018). Generating Global Products of LAI and FPAR From SNPP-VIIRS Data: Theoretical Background and Implementation. *IEEE Transactions on Geoscience and Remote Sensing*, 56, 2119-2137

7. Yang*, Y., Saatchi, S.S., Xu, L., Yu, Y., Choi, S., Phillips, N., Kennedy, R., Keller, M., **Knyazikhin, Y.**, & Myneni, R.B. (2018). Post-drought decline of the Amazon carbon sink. *Nature Communications*, 9, 3172
8. Yang, B., **Knyazikhin, Y.**, Zhao, H., & Ma, Y. (2018). Contribution of leaf specular reflection to canopy reflectance under black soil case using stochastic radiative transfer model. *Agricultural and Forest Meteorology*, 263, 477-482.
9. Yang, B., **Knyazikhin, Y.**, Xie, D., Zhao, H., Zhang, J., & Wu, Y. (2018). Influence of Leaf Specular Reflection on Canopy Radiative Regime Using an Improved Version of the Stochastic Radiative Transfer Model. *Remote Sensing*, 10, 1632.
10. Wang, W., Nemani, R., Hashimoto, H., Ganguly, S., Huang, D., **Knyazikhin, Y.**, Myneni, R., & Bala, G. (2018). An Interplay between Photons, Canopy Structure, and Recollision Probability: A Review of the Spectral Invariants Theory of 3D Canopy Radiative Transfer Processes. *Remote Sensing*, 10, 1805.
11. Song*, W., Knyazikhin, Y., Wen, G., Marshak, A., Möttus, M., Yan, K., Yang, B., Xu, B., Park, T., Chen, C., Zeng, Y., Yan, G., Mu, X., & Myneni, R. (2018). Implications of Whole-Disc DSCOVR EPIC Spectral Observations for Estimating Earth's Spectral Reflectivity Based on Low-Earth-Orbiting and Geostationary Observations. *Remote Sensing*, 10, 1594.
12. Yang*, B., **Knyazikhin, Y.**, Möttus, M., Rautiainen, M., Stenberg, P., Yan, L., Chen, C., Yan, K., Choi, S., Park, T., & Myneni, R.B. (2017). Estimation of leaf area index and its sunlit portion from DSCOVR EPIC data: Theoretical basis. *Remote Sensing of Environment*, 198, 69-84
13. Marshak, A., & **Knyazikhin, Y.** (2017). The spectral invariant approximation within canopy radiative transfer to support the use of the EPIC/DSCOVR oxygen B-band for monitoring vegetation. *Journal of Quantitative Spectroscopy and Radiative Transfer*, 191, 7-12
14. Chen, C., **Knyazikhin, Y.**, Park, T., Yan, K., Lyapustin, A., Wang, Y., Yang, B., & Myneni, R. (2017). Prototyping of LAI and FPAR Retrievals from MODIS Multi-Angle Implementation of Atmospheric Correction (MAIAC) Data. *Remote Sensing*, 9, 370
15. Lin, Y., Wei, T., Yang, B., Knyazikhin, Y., Zhang, Y.H., Sato, H., Fang, X., Liang, X.L., Yan, L., & Sun, S.L. (2017). TLS-bridged co-prediction of tree-level multifarious stem structure variables from worldview-2 panchromatic imagery: a case study of the boreal forest. *International Journal of Digital Earth*, 10, 701-718
16. Yang, W., Marshak, A., McBride, P.J., Chiu, J.C., **Knyazikhin, Y.**, Schmidt, K.S., Flynn, C., Lewis, E.R., & Eloranta, E.W. (2016). Observation of the spectrally invariant properties of clouds in cloudy-to-clear transition zones during the MAGIC field campaign. *Atmospheric Research*, 182, 294-301
17. Bi, J., Myneni, R., Lyapustin, A., Wang, Y., Park, T., Chi, C., Yan, K., & **Knyazikhin, Y.** (2016). Amazon Forests' Response to Droughts: A Perspective from the MAIAC Product. *Remote Sensing*, 8, 356
18. Yan, K., Park, T., Yan, G., Chen, C., Yang, B., Liu, Z., Nemani, R., Knyazikhin, Y., & Myneni, R. (2016). Evaluation of MODIS LAI/FPAR Product Collection 6. Part 1: Consistency and Improvements. *Remote Sensing*, 8, 359
19. Yan, K., Park, T., Yan, G., Liu, Z., Yang, B., Chen, C., Nemani, R., **Knyazikhin, Y.**, & Myneni, R. (2016). Evaluation of MODIS LAI/FPAR Product Collection 6. Part 2: Validation and Intercomparison. *Remote Sensing*, 8, 460
20. Yang, B., **Knyazikhin, Y.**, Lin, Y., Yan, K., Chen, C., Park, T., Choi, S., Möttus, M., Rautiainen, M., Myneni, R., & Yan, L. (2016). Analyses of Impact of Needle Surface Properties on Estimation of Needle Absorption Spectrum: Case Study with Coniferous Needle and Shoot Samples. *Remote Sensing*, 8, 563.
21. Yang, Y., Saatchi, S., Xu, L., Yu, Y., Lefsky, M., White, L., **Knyazikhin, Y.**, & Myneni, R. (2016). Abiotic Controls on Macroscale Variations of Humid Tropical Forest Height. *Remote Sensing*, 8, 494
22. Choi, S.H., Kempes, C.P., Park, T., Ganguly, S., Wang, W.L., Xu, L., Basu, S., Dungan, J.L., Simard, M., Saatchi, S.S., Piao, S.L., Ni, X.L., Shi, Y.L., Cao, C.X., Nemani, R.R., **Knyazikhin, Y.**, & Myneni, R.B. (2016). Application of the metabolic scaling theory and water-energy balance equation to model large-scale patterns of maximum forest canopy height. *Global Ecology and Biogeography*, 25, 1428-1442
23. Hilker, T., Lyapustin, A.I., Hall, F.G., Myneni, R., Knyazikhin, Y., Wang, Y., Tucker, C.J., & Sellers, P.J. (2015). On the measurability of change in Amazon vegetation from MODIS. *Remote Sensing of Environment*, 166, 233-242
24. Möttus, M., Takala, T.L.H., Stenberg, P., Knyazikhin, Y., Yang, B., & Nilson, T. (2015). Diffuse sky radiation influences the relationship between canopy PRI and shadow fraction. *ISPRS Journal of Photogrammetry and Remote Sensing*, 105, 54-60
25. Bi, J., Knyazikhin, Y., Choi, S.H., Park, T., Barichivich, J., Ciaia, P., Fu, R., Ganguly, S., Hall, F., Hilker, T., Huete, A., Jones, M., Kimball, J., Lyapustin, A.I., Möttus, M., Nemani, R.R., Piao, S.L., Poulter, B., Saleska,

- S.R., Saatchi, S.S., Xu, L., Zhou, L.M., & Myneni, R.B. (2015). Sunlight mediated seasonality in canopy structure and photosynthetic activity of Amazonian rainforests. *Environmental Research Letters*, 10
26. Park*, T., Kennedy, R.E., Choi, S.H., Wu, J.W., Lefsky, M.A., Bi, J., Mantooh, J.A., Myneni, R.B., & **Knyazikhin, Y.** (2014). Application of Physically-Based Slope Correction for Maximum Forest Canopy Height Estimation Using Waveform Lidar across Different Footprint Sizes and Locations: Tests on LVIS and GLAS. *Remote Sensing*, 6, 6566-658.
 27. Latorre-Carmona, P., **Knyazikhin, Y.**, Alonso, L., Moreno, J.F., Pla, F., & Yan, Y. (2014). On Hyperspectral Remote Sensing of Leaf Biophysical Constituents: Decoupling Vegetation Structure and Leaf Optics Using CHRIS-PROBA Data Over Crops in Barrax. *Geoscience and Remote Sensing Letters, IEEE*, 11, 1579-1583
 28. Tan, C., Samanta, A., Jin, X., Tong, L., Ma, C., Guo, W., **Knyazikhin, Y.**, & Myneni, R.B. (2013). Using hyperspectral vegetation indices to estimate the fraction of photosynthetically active radiation absorbed by corn canopies. *International Journal of Remote Sensing*, doi: 10.1080/01431161.2013.853143.
 29. **Knyazikhin, Y.**, Lewis, P., Disney, M.I., Möttus, M., Rautiainen, M., Stenberg, P., Kaufmann, R.K., Marshak, A., Schull, M.A., Latorre Carmona, P., Vanderbilt, V., Davis, A.B., Baret, F., Jacquemoud, S., Lyapustin, A., Yang, Y., & Myneni, R.B. (2013). Reply to Ollinger et al.: Remote sensing of leaf nitrogen and emergent ecosystem properties. *Proceedings of the National Academy of Sciences*, 110, E2438
 30. **Knyazikhin, Y.**, Lewis, P., Disney, M.I., Stenberg, P., Möttus, M., Rautiainen, M., Kaufmann, R.K., Marshak, A., Schull, M.A., Latorre Carmona, P., Vanderbilt, V., Davis, A.B., Baret, F., Jacquemoud, S., Lyapustin, A., Yang, Y., & Myneni, R.B. (2013). Reply to Townsend et al.: Decoupling contributions from canopy structure and leaf optics is critical for remote sensing leaf biochemistry. *Proceedings of the National Academy of Sciences*, 110, E1075
 31. **Knyazikhin, Y.**, Schull, M.A., Stenberg, P., Möttus, M., Rautiainen, M., Yang, Y., Marshak, A., Latorre Carmona, P., Kaufmann, R.K., Lewis, P., Disney, M.I., Vanderbilt, V., Davis, A.B., Baret, F., Jacquemoud, S., Lyapustin, A., & Myneni, R.B. (2013). *Hyperspectral remote sensing of foliar nitrogen content. Proceedings of the National Academy of Sciences*, 110, E185-E192.
 32. Chiu, J.C., Marshak, A., Huang, C.H., Várnai, T., Hogan, R.J., Giles, D.M., Holben, B.N., O'Connor, E.J., **Knyazikhin, Y.**, & Wiscombe, W.J. (2012). Cloud droplet size and liquid water path retrievals from zenith radiance measurements: examples from the Atmospheric Radiation Measurement Program and the Aerosol Robotic Network. *Atmos. Chem. Phys.*, 12, 10313-10329.
 33. Ganguly, S., Nemani, R.R., Zhang, G., Hashimoto, H., Milesi, C., Michaelis, A., Wang, W., Votava, P., Samanta, A., Melton, F., Dungan, J.L., Vermote, E., Gao, F., **Knyazikhin, Y.**, & Myneni, R.B. (2012). Generating global Leaf Area Index from Landsat: Algorithm formulation and demonstration. *Remote Sensing of Environment*, doi: 10.1016/j.rse.2011.1010.1032.
 34. Marshak, A., **Knyazikhin, Y.**, Christine Chiu, J., & Wiscombe, W.J. (2012). On spectral invariance of single scattering albedo for water droplets and ice crystals at weakly absorbing wavelengths. *Journal of Quantitative Spectroscopy and Radiative Transfer*, 113, 715-720.
 35. Samanta*, A., **Knyazikhin, Y.**, Xu, L., Dickinson, R.E., Fu, R., Costa, M.H., Saatchi, S.S., Nemani, R.R., & Myneni, R.B. (2012). Seasonal changes in leaf area of Amazon forests from leaf flushing and abscission. *J. Geophys. Res.*, 117, G01015.
 36. Marshak, A., Knyazikhin, Y., Chiu, J.C., & Wiscombe, W.J. (2011). Spectrally Invariant Approximation within Atmospheric Radiative Transfer. *Journal of the Atmospheric Sciences*, 68, 3094-3111.
 37. Wang, Z., Schaaf, C.B., Lewis, P., **Knyazikhin, Y.**, Schull, M.A., Strahler, A.H., Yao, T., Myneni, R.B., Chopping, M.J., & Blair, B.J. (2011). Retrieval of canopy height using moderate-resolution imaging spectroradiometer (MODIS) data. *Remote Sensing of Environment*, 115, 1595-1601.
 38. Chiu, J.C., Marshak, A., **Knyazikhin, Y.**, & Wiscombe, W.J. (2010). Spectrally-invariant behavior of zenith radiance around cloud edges simulated by radiative transfer. *Atmospheric Chemistry and Physics*, 10, 11295-11303.
 39. Yu, Y., S. Saatchi, L. S. Heath, E. LaPoint, R. Myneni, and **Y. Knyazikhin**, Regional Distribution of Forest Height and Biomass from Multisensor Data Fusion, *J. Geophys. Res- Biogeosciences*, 115, G00E12, doi:10.1029/2009JG000995.
 40. Chiu, J. C., C. Huang, A. Marshak, I. Slutsker, D. M. Giles, B. N. Holben, **Y. Knyazikhin**, and W. J. Wiscombe (2010), Cloud optical depth retrievals from the Aerosol Robotic Network (AERONET) cloud mode observations, *Journal of Geophysical Research-Atmospheres*, 115, D14202, doi:10.1029/2009JD013121.

41. Samanta, A., Ganguly, S., **Knyazikhin, Y.**, Nemani, R.R., & Myneni, R.B. (2010), Physical climate response to a reduction of anthropogenic climate forcing, *Earth Interaction*, Vol. 14, NO. 7, 1-11.
42. Samanta, A., S. Ganguly, H. Hashimoto, S. Devadiga, E. Vermote, **Y. Knyazikhin**, R. R. Nemani, and R. B. Myneni (2010), Amazon forests did not green-up during the 2005 drought, *Geophys. Res. Lett.*, 37, L05401, doi:10.1029/2009GL042154.
43. **Knyazikhin, Y.**, Schull, M.A., Xu, L., Myneni, R.B., and Samanta, A.S. (2010). Canopy spectral invariants, Part 1: A new concept in remote sensing of vegetation. *Journal of Quantitative Spectroscopy & Radiative Transfer*, doi:10.1016/j.jqsrt.2010.06.014.
44. Schull, M.A., **Knyazikhin, Y.**, Xu, L., Samanta, A., Latorre Carmona, P., Lepine, L., Jenkins, J.P., Ganguly, S., & Myneni, R.B. (2010). Canopy spectral invariants, Part 2: Application to classification of forest types from hyperspectral data. *Journal of Quantitative Spectroscopy & Radiative Transfer*, doi:10.1016/j.jqsrt.2010.06.004.
45. Marshak, A., **Knyazikhin, Y.**, Chiu, J. C. and Wiscombe, W. J. (2009). Spectral invariant behavior of zenith radiance around cloud edges observed by ARM SWS, *Geophys. Res. Lett.*, 36, L16802, doi:10.1029/2009GL039366.
46. Chiu, J.C., A. Marshak, Y. Knyazikhin, P. Pilewskie, and W. J. Wiscombe, Physical interpretation of the spectral radiative signature in the transition zone between cloud-free and cloudy regions, *Atmospheric Chemistry and Physics*, Volume 9, Issue 4, 1419-1430, 2009.
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48. Ganguly, S., A. Samanta, M. A. Schull, N. V. Shabanov, C. Milesi, R. R. Nemani, Y. Knyazikhin, R. B. Myneni, Generating Vegetation Leaf Area Index Earth System Data Record from Multiple Sensors. Part 2: Implementation, Analysis and Validation, *Remote Sensing of Environment*, 112, 4318-4332, 2008.
49. Garrigues, S., R. Lacaze, F. Baret, J. T. Morisette, M. Weiss, J. E. Nickeson, R. Fernandes, S. Plummer, N. V. Shabanov, R. B. Myneni, **Y. Knyazikhin**, and W. Yang, Validation and intercomparison of global Leaf Area Index products derived from remote sensing data, *J. Geophys. Res.*, 113, G02028, doi:10.1029/2007JG000635
50. Dickinson, R.E., L. Zhou, Y. Tian, Q. Liu, T. Lavergne, B. Pinty, C. B. Schaaf, and Y. Knyazikhin (2008). A 3-dimensional Analytic Model for the Scattering of a Spherical Bush, *J. Geophys. Res.*, Volume 113, Issue D20, Article Number: D20113, 2008.
51. Huang*, D., **Knyazikhin, Y.**, Wang*, W., Deering, D. W., Stenberg, P., Shabanov, N., & Myneni, R.B. (2008). Stochastic transport theory for investigating the three-dimensional canopy structure from space measurements, *Remote Sens. Environ.*, 112, 35-50, 2008.
52. Schull*, M. A., S. Ganguly*, A. Samanta*, D. Huang*, N. V. Shabanov, J. Jenkins, J.C. Chiu, A. Marshak, J.B. Blair, R.B. Myneni and **Y. Knyazikhin** (2008) Physical interpretation of the correlation between multi-angle spectral data and canopy height, *Geophys. Res. Lett.*, 34, doi:10.1029/2007GL031143.
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54. Myneni, R.B., Yang*, W., Nemani, R. R., Huete, A. R., Dickinson, R. E., **Knyazikhin, Y.**, Didan, K., Fu, R., Juárez, R. I. N., Saatchi, S. S., Hashimoto, H., Ichii, K., Shabanov, N. V., Tan*, B., Ratana, P., Privette, J. L., Morisette, J. T., Vermote, E. F., Roy, D. P., Wolfe, R. E., Friedl, M. A., Running, S. W., Votava, P., El-Saleous, N., Devadiga, S., Su, Y., and Salomonson, V. V. Large Seasonal Swings in Leaf Area of Amazon Rainforests, *PNAS*, 4820-4823, Mar 2007.
55. Hu*, J., Su*, Y., Tan*, B., Huang*, D., Yang*, W., Bull, M.A., Martonchik, J.V., Diner, D.J., **Knyazikhin, Y.**, & Myneni, R.B., Analysis of the MISR LAI/FPAR product for spatial and temporal coverage, accuracy and consistency, *Remote Sensing of Environment*, 107, 334-347, Mar 2007.
56. Huang*, D., Y. Knyazikhin, R. E. Dickinson, M. Rautiainen, P. Stenberg, M. Disney, P. Lewis, A. Cescatti, Y. Tian, W. Verhoef, J. V. Martonchik, and R. B. Myneni, Canopy spectral invariants for remote sensing and model applications, *Remote Sens. Environ*, 106, 106-122, 2007.
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61. Huang*, D., W. Yang*, B. Tan*, M. Rautiainen, P. Zhang*, J. Hu*, N. Shabanov, S. Linder, **Y. Knyazikhin**, & R. B. Myneni, The Importance of Measurement Error for Deriving Accurate Reference Leaf Area Index Maps for Validation of Moderate-Resolution Satellite LAI Products. *IEEE Trans. Geosci. Remote Sens.*, vol. 44, Nr. 7, 1866-1871, July 2006.
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