

## Gabriel de Oliveira

---

CONTACT INFORMATION	Department of Geography and Atmospheric Science University of Kansas 320A Lindley Hall 1475 Jayhawk Blvd. Lawrence, KS 66045-7613, USA Voice: (785) 727-8974 E-mail: gabrieloliveira@ku.edu
RESEARCH INTERESTS	Biosphere-atmosphere interactions, water and carbon balances, spatio-temporal analysis, eddy covariance, remote sensing, land use/land cover changes, effects of fire and drought on terrestrial ecosystems, ecological impacts of climate change on urban areas, wetlands, grasslands, perennial agroecosystems, tropical forests, and Amazonia.
EDUCATION	<p><b>Ph.D.</b>, Remote Sensing, 2016 Brazilian Space Agency/National Institute for Space Research (AEB/INPE), Sao Jose dos Campos, SP, Brazil, with a sandwich period (2015-2016) at the University of Kansas, Lawrence, KS, USA Dissertation: Fluxes of radiation, water and carbon over terrestrial ecosystems in eastern Amazon based on MODIS data Advisors: Elisabete C. Moraes and Nathaniel A. Brunsell</p> <p><b>M.S.</b>, Remote Sensing, 2012 Brazilian Space Agency/National Institute for Space Research (AEB/INPE), Sao Jose dos Campos, SP, Brazil Thesis: Modeling of energy balance and evapotranspiration in the Brazilian Amazon using MODIS and ASTER images Advisors: Elisabete C. Moraes</p> <p><b>B.S.</b>, Geography, 2010 Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil Undergraduate Honor Thesis: Integration of SRTM and HRG-SPOT 5 data for mapping banana plantation areas in the northeastern region of Rio Grande do Sul, Brazil Advisors: Laurindo A. Guasselli and Maria C. Lima e Cunha</p>
PROFESSIONAL EXPERIENCE	<p><b>Lecturer</b>, 2019 - Present Department of Geography and Atmospheric Science University of Kansas, Lawrence, KS, USA</p> <p><b>Postdoctoral Researcher</b>, 2016 - Present Department of Geography and Atmospheric Science University of Kansas, Lawrence, KS, USA</p>

**Visiting Doctoral Student**, 2015 - 2016  
Department of Geography and Atmospheric Science  
University of Kansas, Lawrence, KS, USA

**Online Lecturer**, 2013 - Present  
Department of Environmental Engineering  
Federal University of Sao Carlos (UFSCAR), Sao Carlos, SP, Brazil

**Graduate Research Assistant**, 2010 - 2015  
Remote Sensing Division  
Brazilian Space Agency/National Institute for Space Research (AEB/INPE),  
Sao Jose dos Campos, Brazil

**Undergraduate Intern**, 2009 - 2009  
Department of Environmental Supervision  
HAR Engineering Company, Inc., Porto Alegre, RS, Brazil

**Undergraduate Research Assistant**, 2006 - 2010  
Center for Remote Sensing  
Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil

## PUBLICATIONS

### Books

**de Oliveira, G.**; Brunsell, N. A.; Shimabukuro, Y. E.; Santos, C. A. C. (Eds.). *Tropical Forests in Transition - The Role of Deforestation and Impacts from Community Composition to Regional Climate Change* (ISBN: 978-1-78984-094-0). London, UK: InTech. (in press).

### Book Chapters

**de Oliveira, G.**; Brunsell, N. A.; Moraes, E. C.; Shimabukuro, Y. E.; Mataveli, A. V. M.; Santos, T. V.; von Randow, C.; Aragao, L. E. O. C. (2018). Methods to evaluate land-atmosphere exchanges in Amazonia based on satellite imagery and ground measurements. In Sudarshana, P.; Rao, M. N.; Soneji, J. R. (Eds.), *Tropical Forests - New Edition* (ISBN: 978-9-53515-859-2) (pp. 67-94). London, UK: InTech. doi: 10.5772/intechopen.75194.

**de Oliveira, G.**; Moraes, E. C.; Brunsell, N. A.; Shimabukuro, Y. E.; Aragao, L. E. O. C.; Mataveli, A. V. M.; Santos, T. V. 2016. Analysis of precipitation and evapotranspiration in Atlantic Rainforest remnants in southeastern Brazil from remote sensing data. In Blanco, J. E.; Chang, S. C.; Lo, Y. H. (Eds.), *Tropical Forests - The Challenges of Maintaining Ecosystem Services while Managing the Landscape* (ISBN: 978-9-53514-821-0) (pp. 93-112). London, UK: InTech. doi: 10.5772/64533.

### Peer-Reviewed Articles (In Preparation)

**de Oliveira, G.;** Brunsell, N. A.; Olmedo, G. F. Effects of grazing and fire on evapotranspiration in tallgrass prairie using Landsat-8 data. To be submitted to *Ecosystems* (ISSN: 1435-0629).

**de Oliveira, G.;** Brunsell, N. A.; Shimabukuro, Y. E; Moraes, E. C.; Mataveli, G. A. V.; Santos, C. A. C.; Lima, A.; Aragao, L. E. O. C. Legacy effects following fire on surface energy fluxes and water-use efficiency in primary Amazonian forests. To be submitted to *Fire* (ISSN: 2571-6255).

Menezes, D. P.; Mantovani, W.; Filho, H. F.; Conti, L. A.; **de Oliveira, G.** Object-based mapping of secondary forests in the Amazonian arc of deforestation using Landsat time-series imagery from 1984-2016. To be submitted to *Remote Sensing Letters* (ISSN: 2150-7058).

Bertani, G.; Anderson, L. O.; Aragao, L.E.O.C.; **de Oliveira, G.** Describing spatial and temporal patterns of precipitation and temperature seasonality for the Amazon forest. To be submitted to *Plos One* (ISSN: 1932-6203).

#### **Peer-Reviewed Articles (Submitted)**

Brunsell, N. A.; **de Oliveira, G.;** Barlage, M.; Shimabukuro, Y. E; Moraes, E. C.; Aragao, L. E. O. C. Examination of seasonal water and carbon dynamics in eastern Amazonia. *Theoretical and Applied Climatology* (ISSN: 1434-4483). (in review).

Mataveli, G. A. V.; Silva, M. E. S.; Franca, D. A.; Brunsell, N. A.; **de Oliveira, G.;** Cardozo, F. S.; Bertani, G.; Pereira, G. Characterization and trends of fine particulate matter (PM<sub>2.5</sub>) fire emissions in the Brazilian Cerrado. *Remote Sensing* (ISSN: 2072-4292). (in review).

Simioni, J. P.; Guasselli, L. A.; Oliveira, G. G.; Ruiz, L. F.; **de Oliveira, G.** A comparison of data mining techniques and multi-sensor analysis for inland marshes delineation. *Wetlands Ecology and Management* (ISSN: 1572-9834). (in review).

Santos, C. A. C.; Mariano, D. A.; Nascimento, F. C. N.; Dantas, F. R.; **de Oliveira, G.;** Silva, M. T.; Safa, B.; Silva, L. L.; Silva, B. B.; Bezerra, B. G.; Medeiros, S.; Neale, C. M. U. Spatio-temporal patterns of the energy exchanges and evapotranspiration over the semiarid region of Brazil during an intense drought. *International Journal of Applied Earth Observations and Geoinformation* (ISSN: 0303-2434). (in review).

Carneiro, R. G.; Santos, C. A. C.; Borges, C. K.; Andrade, A. M. D.; Fisch, G.; Silva, M. T.; Silva, L. L.; **de Oliveira, G.;** Mariano, D. A.; Safa, B.; Bezerra, B. G.; Neale, C. M. U. Energy balance over two contrasting biomes in Brazil during an intense ENSO event. *Theoretical and Applied Climatology* (ISSN: 1434-4483). (in review).

Borges, C. K.; Santos, C. A. C.; Carneiro, R. G.; Silva, L. L.; **de Oliveira, G.**; Mariano, D. A.; Silva, M. T.; Silva, B. B.; Bezerra, B. G.; Perez-Marin, A. M.; Medeiros, S. S. Seasonal variation of land surface radiation and energy balances over two contrasting caatinga areas in northeastern Brazil. *Environmental Monitoring and Assessment* (ISSN: 0167-6369). (in review).

**de Oliveira, G.**; Brunsell, N. A.; Crews, T. E.; DeHaan, L. R.; Vico, G. Carbon and water relations in perennial Kernza plants: an overview. *Plant Science* (ISSN: 0168-9452). (in review).

### **Peer-Reviewed Articles (Published/In Press)**

**de Oliveira, G.**; Brunsell, N. A.; Moraes, E. C.; Shimabukuro, Y. E.; Santos, T. V.; von Randow, C.; Aguiar, R. G.; Aragao, L. E. O. C. 2019. Effects of land-cover changes on the partitioning of surface energy and water fluxes in Amazonia using high-resolution satellite imagery. *Ecohydrology* (ISSN: 1936-0592). (in press).

Sutherlin, C. E.; Brunsell, N. A.; **de Oliveira, G.**; Crews, T. E.; DeHaan, L. R.; Vico, G. 2019. Contrasting physiological and environmental controls of evapotranspiration over Kernza perennial crop, annual crops, and C4 and mixed C3/C4 grasslands. *Sustainability* (ISSN: 2071-1050), 11, 1-14. doi: 10.3390/su11061640.

Simioni, J. P.; Guasselli, L. A.; Ruiz, L. F.; Nascimento, V. F.; **de Oliveira, G.** 2018. Small inner marsh area delimitation using remote sensing spectral indexes and decision tree method in southern Brazil. *Spanish Journal of Remote Sensing* (ISSN: 1133-0953), 52, 55-66. doi: 10.4995/raet.2018.10366.

**de Oliveira, G.**; Brunsell, N. A.; Sutherlin, C. E.; Crews, T. E.; DeHaan, L. R. 2018. Energy, water and carbon exchange over a perennial Kernza wheatgrass crop. *Agricultural and Forest Meteorology* (ISSN: 0168-1923), 249, 120-137. doi: 10.1016/j.agrformet.2017.11.022.

**de Oliveira, G.**; Moraes, E. C.; Shimabukuro, Y. E.; Aragao, L. E. O. C.; Mataveli, G. A. V. 2017. Application of remote sensing for the study of biosphere-atmosphere interactions in Amazonian ecosystems: a review. *Brazilian Journal of Cartography* (ISSN: 1808-0936), 69, 1189-1210.

**de Oliveira, G.**; Brunsell, N. A.; Moraes, E. C.; Santos, T. V.; Bertani, G.; Shimabukuro, Y. E.; Aragao, L. E. O. C. 2017. Evaluation of MODIS-based estimates of water-use efficiency in Amazonia. *International Journal of Remote Sensing* (ISSN: 1366-5901), 38, 5291-5309. doi: 10.1080/01431161.2017.1339924.

**de Oliveira, G.**; Brunsell, N. A.; Moraes, E. C.; Santos, T. V.; Bertani, G.; Shimabukuro, Y. E.; Aragao, L. E. O. C. 2016. Use of MODIS sensor images combined with reanalysis products to retrieve net radiation in Amazonia. *Sensors* (ISSN: 1424-8220), 16, 1-28. doi: 10.3390/s16070956.

**de Oliveira, G.**; Moraes, E. C.; Rudorff, B. F. T. 2014. Radiation balance in areas of sugarcane expansion in Sao Paulo state using MODIS/Aqua orbital data. *Brazilian Journal of Cartography* (ISSN: 1808-0936), 66, 419-431.

**de Oliveira, G.**; Moraes, E. C. 2013. Digital classification of land use and land cover in Amazonia based on ASTER orbital data. *Brazilian Journal of Physical Geography* (ISSN: 1984-2295), 6, 510-521.

**de Oliveira, G.**; Moraes, E. C. 2013. Validation of net radiation obtained from MODIS/TERRA data in Amazonia with LBA surface measurements. *Acta Amazonica* (ISSN: 0044-05967), 43, 353-363. doi: 10.1590/S0044-59672013000300011.

Moraes, E. C.; Pereira, G.; Cardozo, F. C.; **de Oliveira, G.**; Ferreira, M. P. 2011. Spectral response of vegetation covered surface subject to flooding due to viewing geometry. *Geografia* (ISSN: 0100-7912), 36, 187-199.

Lima e Cunha, M. C.; Monguilhott, M.; Saldanha, D. L.; Guasselli, L. A.; **de Oliveira, G.** 2011. Quantification of forest remnant dynamics in Jaquirana, RS, in satellite images. *Brazilian Journal of Forest Science* (ISSN: 0100-6762), 35, 867-873. doi: 10.1590/S0100-67622011000500012.

Martins, E. M.; **de Oliveira, G.**; Guasselli, L. A. 2009. GIS as a method for management of public transportation using free software. *Bulletin of Rio Grande do Sul Association of Geographers* (ISSN: 0101-7888), 35, 119-132.

### **Non Peer-Reviewed Publications**

Brunsell, N. A.; **de Oliveira, G.** 2018. Technical report for the Perennial Agricultural Project of the Land Institute. Salina, KS, USA: The Land Institute. 4 pages.

Brunsell, N. A.; **de Oliveira, G.** 2017. Technical report for the Perennial Agricultural Project of the Land Institute. Salina, KS, USA: The Land Institute. 6 pages.

Saldanha, D. L.; Guasselli, L. A.; Lima e Cunha, M. C.; Ducati, J. R.; **de Oliveira, G.**; Novaczyk, K. 2008. Technical report for the Atlantic Forest Conservation Project. Porto Alegre, RS, Brazil: Environmental Protection Agency of Rio Grande do Sul. 157 pages.

### **Full-Length Conference Articles**

Brunsell, N. A.; **de Oliveira, G.**; Shimabukuro, Y. E; Moraes, E. C. 2019. Assessing the impact of drought and land cover on water and carbon cycling using modeling and remote sensing. *19th Brazilian Symposium on Remote Sensing*

(ISBN: xxx-xx-xx-xxxx-x), pp. xxxx-xxxx. 14-17 April. Santos, SP, Brazil.

Silva, N. R.; Moraes, E. C.; Moura, M. S.; **de Oliveira, G.**; Carvalho, H. F.; Oliveira, B. S. 2019. Analysis of METRIC model in the estimation of evapotranspiration over irrigated sugarcane areas. *19th Brazilian Symposium on Remote Sensing* (ISBN: xxx-xx-xx-xxxx-x), pp. xxxx-xxxx. 14-17 April. Santos, SP, Brazil.

**de Oliveira, G.**; Brunsell, N. A.; Moraes, E. C.; Shimabukuro, Y. E.; Bertani, G.; Santos, T. V.; Aragao, L. E. O. C. 2017. Gross primary productivity in the northern region of Para State, Brazilian Amazon, from MOD17 data. *2017 IEEE International Geoscience and Remote Sensing Symposium* (ISSN: 2153-7003), pp. 5822-5825. 23-28 July. Fort Worth, TX, USA. doi: 10.1109/IGARSS.2017.8128332.

**de Oliveira, G.**; Moraes, E. C.; Shimabukuro, Y. E.; Santos, T. V. 2015. Estimation of sensible heat flux in eastern Rondonia, Brazil, from ASTER data and SEBAL model. *17th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-0076-8), pp. 1051-1058. 25-29 April. Joao Pessoa, PB, Brazil.

**de Oliveira, G.**; Moraes, E. C. 2015. Use of MOD16 data to analyze evapotranspiration in Atlantic rainforest remnants in Sao Paulo, Brazil, between 2000 and 2010. *17th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-0076-8), pp. 1059-1066. 25-29 April. Joao Pessoa, PB, Brazil.

**de Oliveira, G.**; Moscardo, A.; Moares, E. C.; Rudorff, B. F. T. 2013. Temporal variation of net radiation over sugarcane plantation areas in Minas Gerais and Goias, Brazil, through MODIS data. *16th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00066-9), pp. 1657-1664. 13-18 April. Foz do Iguacu, PR, Brazil.

**de Oliveira, G.**; Moares, E. C.; Rudorff, B. F. T. 2013. Net radiation over areas of sugarcane expansion in Sao Paulo state between 2006/2007 and 2007/2008. *16th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00066-9), pp. 305-312. 13-18 April. Foz do Iguacu, PR, Brazil.

**de Oliveira, G.**; Moraes, E. C.; Shimabukuro, Y. E.; Rudorff, B. F. T.; Alvala, R. C. S.; Santos, T. V. 2013. Evaluation of albedo in different land cover types in southeastern Amazonia. *16th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00066-9), pp. 8706-8713. 13-18 April. Foz do Iguacu, PR, Brazil.

**de Oliveira, G.**; Moraes, E. C.; Shimabukuro, Y. E.; Rudorff, B. F. T.; Alvala, R. C. S.; Santos, T. V. 2013. Use of ASTER/Terra data to estimate net radiation in the Amazon. *16th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00066-9), pp. 8714-8721. 13-18 April. Foz do Iguacu, PR, Brazil.

**de Oliveira, G.**; Moraes, E. C. 2013. Mapping of land use and land cover in Ouro Preto do Oeste, Rondonia, using ASTER images. *16th Brazilian Sym-*

*posium on Remote Sensing* (ISBN: 978-85-17-00066-9), pp. 7273-7280. 13-18 April. Foz do Iguacu, PR, Brazil.

**de Oliveira, G.**; Moraes, E. C. 2013. Comparison of albedo estimates obtained at different spatial resolutions in the Amazon region. *16th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00066-9), pp. 1275-1282. 13-18 April. Foz do Iguacu, PR, Brazil.

Cardozo, F. S.; **de Oliveira, G.**; Ferreira, M. P.; Moraes, E. C. 2011. BRDF of a vegetated surface under different geometry views and flooding conditions. *15th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00056-0), pp. 8516-8523. April 30-May 5. Curitiba, PR, Brazil.

Ferreira, M. P.; **de Oliveira, G.**; Zanotta, D. C.; Fonseca, L. M. G. 2011. Automatic detection of changes in reforestation areas. *15th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00056-0), pp. 7690-7697. April 30-May 5. Curitiba, PR, Brazil.

**de Oliveira, G.**; Verdum, R. 2011. Digital processing of orbital data for mapping conservation units in the area of influence of the Rota do Sol road, RS, Brazil. *15th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00056-0), pp. 7517-7524. April 30-May 5. Curitiba, PR, Brazil.

**de Oliveira, G.**; Guasselli, L. A.; Lima e Cunha, M. C.; Saldanha, D. L. 2011. Comparative analysis of classification algorithms for mapping banana plantation areas. *15th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00056-0), pp. 7509-7516. April 30-May 5. Curitiba, PR, Brazil.

**de Oliveira, G.**; Guasselli, L. A.; Lima e Cunha, M. C.; Saldanha, D. L. 2011. Geomorphometry of banana plantation areas in the north coast of Rio Grande do Sul, Brazil. *15th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00056-0), pp. 0231-0238. April 30-May 5. Curitiba, PR, Brazil.

Moraes, E. C.; Pereira, G.; Cardozo, F. C.; Ferreira, M. P.; **de Oliveira, G.** 2010. Influence of viewing angle on the spectral response of a vegetated surface with flooding simulations. *3rd Symposium of Geotechnologies in Pantanal*, pp. 922-930. 16-20 October. Caceres, MT, Brazil.

Guasselli, L. A.; **de Oliveira, G.**; Saldanha, D. L.; Cunha, M. C. L.; Ducati, J. R. 2009. Identification of Atlantic forest remnants in Gramado, Rio Grande do Sul, using SPOT images. *14th Brazilian Symposium on Remote Sensing* (ISBN: 978-85-17-00044-7), pp. 2745-2751. 25-30 April. Natal, RN, Brazil.

ABSTRACTS AND  
CONFERENCE  
PRESENTATIONS

Gutknecht, J.; Jungers, J.; Wyse, D.; **de Oliveira, G.**; Brunzell, N. A.; Sheaffer, C.; Bergquist, G.; Crews, T. E. 2019. The carbon budget, sustainability, and viability of a novel perennial agroecosystem. *2019 Annual Meeting for the Ecological Society of America*, 11-16 August. Louisville, KY, USA.

Restrepo-Osorio, D. L.; Schossler, D. S.; **de Oliveira, G.** 2019. Variables influencing the management of cattle ranches of eastern Uruguay. *2019 Kansas Natural Resources Conference*, 31 January-1 February. Manhattan, KS, USA.

**de Oliveira, G.**; Brunsell, N. A.; Satcher, P. S. 2018. Spatio-temporal patterns of albedo and the responses to canopy fraction, land cover and land surface temperature in the greater Kansas City area. *2018 American Geophysical Union Fall Meeting*, 10-14 December. Washington, DC, USA.

**de Oliveira, G.**; Brunsell, N. A.; Olmedo, G. F. 2018. Evaluating the effects of different fire and grazing treatments on water fluxes in the Konza Prairie using eddy covariance and Landsat data. *2018 AmeriFlux PI Meeting*, 24-25 October. Bloomington, IN, USA.

**de Oliveira, G.**; Brunsell, N. A. 2018. Remote sensing of surface energy fluxes over the Konza Prairie. *6th Annual Postdoctoral Research Day at the University of Kansas*, 28 September. Lawrence, KS, USA.

**de Oliveira, G.**, Brunsell, N. A.; Sutherlin, C. E.; Crews, T. E.; Vico, G. 2018. Assessing land-atmosphere interactions over Kernza. *2018 Kansas Kernza Conference*, 27-29 July. Lindsborg, KS, USA.

**de Oliveira, G.**, Brunsell, N. A.; Olmedo, G. F. 2018. Spatio-temporal variability of energy and water fluxes using Landsat-8 and eddy covariance data. *2018 Konza Prairie LTER Annual Meeting*, 29 May. Manhattan, KS, USA.

**de Oliveira, G.**, Brunsell, N. A.; Moraes, E. C.; Shimabukuro, Y. E. 2018. Analysis of carbon and water fluxes in an Amazonian forest ecosystem affected by fire. *33rd Conference on Agricultural and Forest Meteorology*, 14-17 May. Boise, ID, USA.

**de Oliveira, G.**; Brunsell, N. A.; Sutherlin, C. E.; Crews, T. E.; Vico, G. 2018. Carbon sequestration by a perennial Kernza wheatgrass crop. *33rd Conference on Agricultural and Forest Meteorology*, 14-17 May. Boise, ID, USA.

**de Oliveira, G.**; Brunsell, N. A.; Sutherlin, C. E.; Crews, T. E.; Vico, G. 2017. Assessing water-use relationships in a perennial Kernza field. *2017 American Geophysical Union Fall Meeting*, 11-15 December. New Orleans, LA, USA.

Sutherlin, C. E.; Brunsell, N. A.; **de Oliveira, G.**; Crews, T. E.; Vico, G. 2017. Investigating the sustainability of perennial agriculture. *2017 American Geophysical Union Fall Meeting*, 11-15 December. New Orleans, LA, USA.

**de Oliveira, G.**, Brunsell, N. A. 2017. Use of satellite remote sensing data to investigate the spatio-temporal variability of water and carbon fluxes in the Konza Prairie Biological Station (KPBS). *Konza Prairie LTER Site Review*, 6-8 September. Manhattan, KS, USA.

**de Oliveira, G.;** Brunsell, N. A. 2017. Combined use of satellite and surface observations to map evapotranspiration in a northeast Kansas tallgrass prairie. *5th Annual Postdoctoral Research Day at the University of Kansas*, 27 April. Lawrence, KS, USA.

**de Oliveira, G.;** Brunsell, N. A. 2017. Utilizing Landsat 8 satellite imagery to estimate leaf area index (LAI) over grasslands in the Flint Hills of Kansas. *2017 Kansas Natural Resources Conference*, 26-27 January. Wichita, KS, USA.

**de Oliveira, G.;** Brunsell, N. A. 2016. Assessing the impacts of fire on water-use efficiency in grasslands in eastern Kansas combining satellite and eddy covariance data. *2016 American Geophysical Union Fall Meeting*, 12-16 December. San Francisco, CA, USA.

**de Oliveira, G.;** Brunsell, N. A. 2016. Satellite data as a tool in the monitoring of water fluxes in native prairie grasses in Kansas. *2016 Governor's Conference on the Future of Water in Kansas*, 14-15 November. Manhattan, KS, USA.

**de Oliveira, G.;** Moraes, E. C.; Shimabukuro, Y. E.; Brunsell, N. A.; Aragao, L. E. O. C.; Bertani, G. 2016. Comparison of evapotranspiration following fire in a primary Amazonian forest based on MOD16 data. *96th American Meteorological Society Annual Meeting*, 10-14 January. New Orleans, LA, USA.

**de Oliveira, G.;** Moraes, E. C.; Shimabukuro, Y. E.; Brunsell, N. A.; Aragão, L. E. O. C.; Bertani, G. 2015. Effects of fire on net radiation and evapotranspiration in a mature forest plot in Para state, eastern Brazilian Amazon. *2015 American Geophysical Union Fall Meeting*, 14-18 December. San Francisco, CA, USA.

**de Oliveira, G.;** Brunsell, N. A. 2015. Understanding the effects of fire on net radiation and evapotranspiration patterns in a mature Amazonian forest using MODIS remote sensing data. *14th Annual GIS Day at the University of Kansas*, 18 November. Lawrence, KS, USA.

**de Oliveira, G.;** Brunsell, N. A. 2015. Comparison of albedo estimates obtained from satellite images with different spatial resolutions in Amazonia. *Midwest Mathematics and Climate Conference*, April 30-May 2. Lawrence, KS, USA.

**de Oliveira, G.;** Moraes, E. C.; Shimabukuro, Y. E.; Santos, T. V. 2015. Retrieval of latent heat flux from Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) images in south-western Amazonia. *95th American Meteorological Society Annual Meeting*, 4-8 January. Phoenix, AZ, USA.

**de Oliveira, G.;** Moraes, E. C.; Shimabukuro, Y. E.; Santos, T. V. 2014. Estimation of surface albedo in the Brazilian Amazon using high spatial resolution satellite imagery. *14th European Meteorological Society Annual Meeting*, 6-10

October. Prague, Czech Republic.

**de Oliveira, G.;** Moraes, E. C.; Shimabukuro, Y. E.; Alvala, R. C. S.; Santos, T. V. 2014. Radiation balance at the surface in the Brazilian Amazon using MODIS/Terra remote sensing data. *94th American Meteorological Society Annual Meeting*, 2-6 February. Atlanta, GA, USA.

**de Oliveira, G.;** Moraes, E. C.; Shimabukuro, Y. E.; Alvala, R. C. S.; Santos, T. V. 2013. Orbital remote sensing applied to estimate albedo in the Amazon region. *1st National Conference on Global Climate Change*, 9-13 September. Sao Paulo, SP, Brazil.

**de Oliveira, G.;** Guasselli, L. A.; Saldanha, D. L.; Lima e Cunha, M. C. 2009. Application of the MAXVER classifier for mapping land use and land cover in the Serra Geral Biological Reserve. *10th Pontifical Catholic University of Rio Grande do Sul Undergraduate Research Symposium*, 5-9 October. Porto Alegre, RS, Brazil.

**de Oliveira, G.;** Guasselli, L. A. ; Saldanha, D. L. ; Lima e Cunha, M. C. 2009. GIS for spatialization and quantification of Atlantic forest in the north shore of RS, Brazil. *9th International Symposium on GIS and Computer Cartography for Coastal Zone Management*, September 30-October 2. Itajai, SC, Brazil.

**de Oliveira, G.;** Guasselli, L. A.; Saldanha, D. L.; Lima e Cunha, M. C.; Ducati, J. R. 2009. Analysis of land use and land cover in Atlantic forest landscapes in southern Brazil. *5th Environmental Protection Agency of Rio Grande do Sul Research Symposium*, 16-19 June. Porto Alegre, RS, Brazil.

**de Oliveira, G.;** Guasselli, L. A. 2009. Evaluation of different algorithms to map banana plantation areas using SPOT images. *21st Federal University of Rio Grande do Sul Undergraduate Research Symposium*, 5-9 June. Porto Alegre, RS, Brazil.

Silva, T. O. C.; **de Oliveira, G.;** Guasselli, L. A. 2009. Generation of a geo-referenced database to assess land use conflicts. *21st Federal University of Rio Grande do Sul Undergraduate Research Symposium*, 5-9 June. Porto Alegre, RS, Brazil.

**de Oliveira, G.;** Guasselli, L. A.; Saldanha, D. L.; Lima e Cunha, M. C.; Ducati, J. R. 2009. Digital classification of SPOT images to analyze Atlantic forest areas in the city of Cambora do Sul between 2002 and 2007. *Rio Grande do Sul Association of Geographers Annual Meeting*, 21-23 May. Pelotas, RS, Brazil.

Novaczyk, K.; **de Oliveira, G.;** Saldanha, D. L.; Lima e Cunha, M. C.; Guasselli, L. A. 2008. Mapping of Atlantic forest remnants in the northeast region of Rio Grande do Sul state, Brazil. *20th Federal University of Rio Grande do Sul Undergraduate Research Symposium*, 20-24 October. Porto Alegre, RS, Brazil.

Martins, E. M.; **de Oliveira, G.**; Guasselli, L. A. 2007. Automatic extraction of roads from CBERS satellite images. *19th Federal University of Rio Grande do Sul Undergraduate Research Symposium*, 21-26 October. Porto Alegre, RS, Brazil.

INVITED PRESENTATIONS      *“United Nations Framework Convention on Climate Change: The Special Report of Global Warming of 1.5 C”*: 55th Annual Topeka Model United Nations, 25-26 February 2019, Topeka, KS, USA.

ORGANIZING COMMITTEES      *17th Annual GIS Day at the University of Kansas*, 14 November 2018, Lawrence, KS, USA.

*2018 Northeast Kansas Science Olympiad*, 24 February 2018, Overland Park, KS, USA.

*3rd International Conference on Remote Sensing Technologies and Applications*, 5-7 January 2018, Bangkok, Thailand.

*16th Annual GIS Day at the University of Kansas*, 15 November 2017, Lawrence, KS, USA.

*2nd International Conference on Remote Sensing Technologies and Applications*, 28-30 November 2016, Sanya, China.

*15th Annual GIS Day at the University of Kansas*, 16 November 2016, Lawrence, KS, USA.

*2016 International Conference on Surveying, Mapping and Geoinformation*, 25-27 July 2016, Suzhou, China.

*1st International Conference on Remote Sensing Technologies and Applications*, 20-22 November 2015, Guilin, China.

SCIENTIFIC COMMITTEES      *Fall 2018 American Geophysical Union Outstanding Student Paper Award*, 10-14 December 2018, Washington, DC, USA.

*2018 International Symposium on Distance Education*, 26 June-13 July 2018, Sao Carlos, SP, Brazil.

*Spring 2018 American Geophysical Union Earth and Space Science Virtual Poster Showcase*, 8 May 2018, Washington, DC, USA.

*University of Kansas Engineering Research Showcase*, 19 April 2018, Lawrence, KS, USA.

*University of Kansas Graduate Research Competition*, 3 April 2018, Lawrence, KS, USA.

*Fall 2017 American Geophysical Union Outstanding Student Paper Award*, 11-15 December 2017, New Orleans, LA, USA.

*2017 International Symposium on Remote Sensing for Climate and Earth Monitoring*, 21-25 May 2017, Barcelona, Spain.

*University of Kansas Graduate Research Competition*, 6 April 2017, Lawrence, KS, USA.

*2016 International Symposium on Distance Education*, 8-27 September 2016, Sao Carlos, SP, Brazil.

*2016 International Symposium on Remote Sensing for Climate and Earth Monitoring*, 26-30 June 2016, Lisbon, Portugal.

*2015 International Symposium on Remote Sensing for Climate and Earth Monitoring*, 24-29 May 2015, Rome, Italy.

*2014 International Symposium on Distance Education*, 15-26 September 2014, Sao Carlos, SP, Brazil.

SESSION CHAIR    *“Global and International Studies”*: University of Kansas Undergraduate Research Symposium, 28 April 2018, Lawrence, KS, USA.

*“Monitoring Forests II”*: 2017 IEEE International Geoscience and Remote Sensing Symposium, 23-28 July 2017, Fort Worth, TX, USA.

FUNDING            *Development of a fire risk information system for the Cerrado biome, central Brazil*. Brazilian Environmental Protection Agency, Brazilian Ministry of Environment. Co-I. PI: Yosio E. Shimabukuro, Remote Sensing Division, Brazilian Space Agency/National Institute for Space Research (AEB/INPE), Sao Jose dos Campos, SP, Brazil. Total: USD 55,000. Active (1/1/2019-12/31/2020).

*Assessing the mechanisms of land-atmosphere coupling in Brazil*. Funding Agency of Sao Paulo State. Co-I. PI: Nathaniel A. Brunsell, Department of Geography and Atmospheric Science, University of Kansas, Lawrence, KS, USA. Total: USD 50,000. Status: Active (8/1/2018-6/30/2019).

FELLOWSHIPS      **Visiting Doctoral Student Fellowship**. Department of Geography and Atmospheric Science, University of Kansas, Lawrence, KS, USA (2015 - 2016). *“Evapotranspiration in the Amazon region using satellite and reanalysis data”*. Coordination for the Improvement of Higher Education Personnel, Brazilian Ministry of Education. Total: USD 26,500.

**Graduate Research Fellowship (Ph.D.)**. Remote Sensing Division, Brazilian Space Agency/National Institute for Space Research (AEB/INPE), Sao Jose

dos Campos, SP, Brazil (2012 - 2015). *“Remote sensing of surface energy and carbon fluxes in eastern Amazonia”*. National Council for Scientific and Technological Development, Brazilian Ministry of Science and Technology. Total: USD 32,000.

**Graduate Research Fellowship (M.S.)**. Remote Sensing Division, Brazilian Space Agency/National Institute for Space Research (AEB/INPE), Sao Jose dos Campos, SP, Brazil (2010 - 2012). *“Surface energy fluxes in southwestern Amazonia using satellite images with different spatial resolutions”*. Coordination for the Improvement of Higher Education Personnel, Brazilian Ministry of Education. USD 10,000.

**Undergraduate Research Fellowship**. Department of Geography, Federal University of Rio Grande do Sul (UFRGS), Porto Alegre, RS, Brazil (2006 - 2010). *“Remote sensing for mapping and monitoring Atlantic forest remnants in southern Brazil”*. Research Support Foundation of Rio Grande do Sul. Total: USD 8,500.

LARGE FIELD  
CAMPAIGNS

**Participant:** *“Understanding the response of photosynthetic metabolism in tropical forests to seasonal climate variations”*. Para, Brazil. November 2014. Campaign organized by the Department of Ecology and Evolutionary Biology, University of Arizona, Tucson, AZ, USA.

**Participant:** *“Impacts of drought and fire events in central Amazonian forests”*. Manaus, Brazil. June 2013. Campaign organized by the Department of Ecology, National Institute for Amazonian Research (INPA), Manaus, AM, Brazil.

**Leader:** *“Carbon budget in burned forests”*. Acre, Brazil, Pando, Bolivia, and Ucayali, Peru. June 2011. Campaign organized by the Remote Sensing Division, Brazilian Space Agency/National Institute for Space Research (AEB/INPE), Sao Jose dos Campos, SP, Brazil.

**Leader:** *“Surface energy fluxes over forests in southwestern Amazonia”*. Rondonia, Brazil. July 2011. Campaign organized by the Remote Sensing Division, Brazilian Space Agency/National Institute for Space Research (AEB/INPE), Sao Jose dos Campos, SP, Brazil.

TEACHING  
EXPERIENCE

**Department of Geography and Atmospheric Science  
University of Kansas, Lawrence, KS, USA**

Courses:

GEOG 104 - Introduction to Physical Geography (2019-Present)

GEOG 105 - Introductory Laboratory in Physical Geography (2019-Present)

**Department of Environmental Engineering  
Federal University of Sao Carlos (UFSCAR), Sao Carlos, SP, Brazil**

Courses:

Undergraduate Internship in Environmental Engineering (2016-Present)  
Undergraduate Honor Thesis (2016-Present)  
Climatology and Meteorology (2013-2016)  
Geographic Information Science (2014-2016)

SUPERVISION

**Department of Environmental Engineering, Federal University of Sao Carlos (UFSCAR), Sao Carlos, SP, Brazil**

Undergraduate Honor's Thesis Advisor:

Marcelo Torres, B.S., Environmental Engineering  
Status: In Progress (2018-Present)

Edson Mori, B.S., Environmental Engineering  
Status: Completed (2017)

Marcio Pacheco, B.S., Environmental Engineering  
Status: Completed (2016)

**Remote Sensing Division, Brazilian Space Agency/National Institute for Space Research (AEB/INPE), Sao Jose dos Campos, SP, Brazil**

Doctoral Committee Member:

Bruno Oliveira, Ph.D., Remote Sensing  
Status: Completed (2018)

Master's Committee Co-Chair:

Nildson Casa, M.S., Remote Sensing  
Status: In Progress (2017-Present)

**Department of Geography and Atmospheric Science, University of Kansas, Lawrence, KS, USA**

Undergraduate Advisees:

Caitlyn E. Sutherlin, B.S., Atmospheric Science  
Status: Completed (2018)

REVIEWER

**Scientific Reports**

Intergovernmental Panel on Climate Change (IPCC) Special Report on 1.5 Degrees. Chapters 1-5. 2018.

## Manuscript Reviewer

International Journal of Remote Sensing (ISSN: 1366-5901)  
Agricultural and Forest Meteorology (ISSN: 0168-1923)  
Remote Sensing (ISSN: 2072-4292)  
International Journal of Digital Earth (ISSN: 1753-8947)  
Bulletin of Geodetic Sciences (ISSN: 1982-2170)  
Climatic Change (ISSN: 1573-1480)  
ISPRS International Journal of Geo-Information (ISSN: 2220-9964)  
Data (ISSN: 2306-5729)  
Advances in Remote Sensing (ISSN: 2169-2688)  
Journal of Earth Science and Engineering (ISSN: 2158-581X)  
Journal of Water Resource and Protection (ISSN: 1945-3108)  
Journal of Geoscience and Environment Protection (ISSN: 2327-4344)  
Journal of Environmental and Social Sciences (ISSN: 2454-5953)  
Journal of Sensor Technology (ISSN: 2161-1238)  
International Journal of Geosciences (ISSN: 2156-8367)  
Open Journal of Forestry (ISSN: 2163-0437)

PROFESSIONAL  
ORGANIZATIONS

**Int. Society for Photogrammetry and Remote Sensing**, 2018-Present  
**American Geophysical Union**, 2015-Present  
**European Meteorological Society**, 2014-Present  
**American Meteorological Society**, 2014-Present