**Curriculum Vitae**

Notarization. I have read the following and certify that this *curriculum vitae* is a current and accurate statement of my professional record.



Signature Date 06/08/2018

1. **Personal Information**

*UID: 1145503169*

*Last Name, Name: de Lima, André*

*Citation: Lima, A.*

*Address: 7734 Lakecrest dr. Greenbelt-MD 20770*

* 1. Other Employment

*2017-present University of Maryland (UMD). Position: Postdoctoral researcher. Supervisor: Matthew Hansen.*

*2015-2017 University of Maryland (UMD). Position: Postdoctoral researcher. Supervisor: Wilfrid Schroeder.*

*2014-2015 Brazilian Agricultural Research Corporation (EMBRAPA). Embrapa Satellite Monitoring. Position: Consultant at TerraClass Cerrado project – mapping crop fields in Cerrado Biome (Brazilian Savanna). Supervisor: Edson Luis Bolfe (EMBRAPA/World Bank)*

*2013-2014 National Institute for Space Research (INPE). Remote Sensing Division (DSR). Position: Post-Doctoral Researcher. Supervisor: Luiz Eduardo Aragão*

*2012 CARGILL. GIS and Remote Sensing Department. Position: GIS Analyst – mapping crop fields (Freelancer). Employer: José Luis Rodriguez Yi / Maurício Moreira*

*2008 Conservation International (CI). GIS and Remote Sensing Department. Position: GIS Analyst (Freelancer). Employer: Carlos Alberto Bouchadert*

*2007 National Institute for Space Research (INPE). Remote Sensing Division (DSR). Position: Research Assistant. Employer: Dr. Bernardo Rudorff and Dr. Yosio Shimabukuro.*

*2005 – 2006 University of São Paulo (USP). Landscape Ecology and Conservation Laboratory (LEPaC). Position: GIS Analyst. Employer: Dr. Jean Paul Meztger.*

*2002 – 2003 Brazilian Agricultural Research Corporation (EMBRAPA). Agrometeorology Laboratory. Position: GIS Analyst. Employer: EMBRAPA.*

*2002 – 2003 State University of Londrina (UEL). Biodiversity and Ecosystems Restoration Laboratory. Position: GIS Analyst. Supervisor: Dr. José Marcelo Domingues Torezan.*

*1999 – 2001 State University of Londrina (UEL). Landscape Ecology Laboratory (LEP). Position: GIS Analyst trainee. Supervisor: Dr. Efraim Rodrigues.*

* 1. Educational Background

*2013-2014 Post Doc in Spatial-temporal fire modeling in the Amazon - National Institute for Space Research (INPE)/University of Exeter (UK). Project title: Refining tropical predictions: a spatially explicit framework for analyzing, quantifying and forecasting fire incidence in Amazonia. Supervisor: Dr. Luiz Eduardo Aragão.*

*2008-2013 PhD. in Remote Sensing at National Institute for Space Research (INPE), São José dos Campos, Brazil. Thesis title:* *Land cover role in the extent and spatial pattern of burned areas in years of extreme drought in the Amazon region. Advisor: Dr. Yosio Edemir Shimabukuro, Dr. Antônio Roberto Formaggio.*

*2003-2005 Master Degree in Remote Sensing at National Institute for Space Research (INPE), São José dos Campos, Brazil. Thesis title: Assessing the representativeness of Conservation System Units in Mato Grosso State (Brazil) using spatial analysis and remote sensing techniques. Keywords: Conservation, Amazon region, Land-use/land-cover change mapping, Geographic Information Systems, Moderate Resolution Imaging Spectroradiometer - MODIS. Advisor: Dr. Yosio Edemir Shimabukuro.*

*1997-2002 Bachelor Degree in Geography at Londrina State University (UEL), Londrina, Brazil. Scholarly Paper Title: Identification of Atlantic Forest Eco-units using Remote Sensing Techniques. Keywords: Forest patch, Conservation, Thematic Mapper sensor, Digital Classification, Geographic Information Systems. Advisor: Dr. José Marcelo Domingues Torezan.*

* 1. Professional Memberships

*2005 - present International Association for Landscape Ecology – IALE-BR*

*2010 – present Society for Conservation GIS - SCGIS*

1. **Research, Scholarly, Creative and/or Professional Activities**
   1. Chapters
      1. Books

*ARAGÃO, LEOC., ANDERSON L.O.,* ***LIMA, A****., ARAI, E. Fires in Amazonia. In:* [*Interactions Between Biosphere, Atmosphere and Human Land Use in the Amazon Basin*](https://link.springer.com/book/10.1007/978-3-662-49902-3)*. First ed. Berlin: Springer, v.1, p. 301-329. 2016.*

***LIMA, André****, ARAGÃO, Luiz Eduardo O.C., BARLOW, J., SHIMABUKURO, Y. E., ANDERSON, Liana O, DUARTE, V. Forest fires severity in years of extreme drought. In: Amazonian droughts: causes e consequences. First ed. São Paulo: Oficina de Textos, v. 1, p. 180-206, 2013.*

*ARAGÃO, Luiz Eduardo O.C., SHIMABUKURO, Y. E., CARDOSO, M., ANDERSON, Liana O,* ***LIMA, André****. Fire frequency during recent droughts. In: Amazonian droughts: causes e consequences. First ed. São Paulo: Oficina de Textos, v. 1, p. 165-179, 2013.*

*ANDERSON, Liana, ARAGÃO, Luiz Eduardo O.C., VALERIANO, D., CARDOSO, M., Shimabukuro, Y. E.,* ***LIMA, André****. Drought impacts on Amazon forest. In: Amazonian droughts: causes e consequences. First ed. São Paulo: Oficina de Textos, 2013, p. 147-164.*

*SHIMABUKURO, Yosio E., João R. SANTOS, Bernardo F. T. RUDORFF, Egídio ARAI, Valdete DUARTE,* ***LIMA, André****. Operational use of MODIS data: Detection of deforested and burned areas in real time. MODIS application in Latin America. 2009.*

* + 1. Research Paper

*ANDERSON L.O., D CHEEK, D., ARAGÃO, LEOC., ANDERE, L., DUARTE, B., SALAZAR, N.,* ***LIMA, A****., DUARTE, V., ARAI, E. Development of a Point-based method for Map Validation and Confidence Interval Estimation: A case study of Burned Areas in Amazonia. Journal of Remote Sensing and GIS. v. 6, p. 1-9, 2017.*

*FONSECA, M.G., ARAGÃO, LEOC.,* ***LIMA, A****., SHIMABUKURO, Y., ARAI, E., ANDERSON L.O. Modelling fire probability in the Brazilian Amazon using the maximum entropy method. International Journal of Wildland Fire. v. 25, p. 955-969, 2016.*

*CARMENTA, R., BLACKBURN, G.A., DAVIES, G., de SASSI, C.,* ***LIMA, A****., PARRY, L., TYCH, W. BARLOW, J. Does the Establishment of Sustainable Use Reserves Affect Fire Management in the Humid Tropics? PLOS One.* [*https://doi.org/10.1371/journal.pone.0149292*](https://doi.org/10.1371/journal.pone.0149292)*. 2016.*

*FERREIRA, J., ARAGAO, L. E. O. C., Barlow, J., BARRETO, P., BERENGUER, E., BUSTAMANTE, M., GARDNER, T. A., LEES, A. C.,* ***LIMA, André****, LOUZADA, J., PARDINI, R., PARRY, L., PERES, C. A., POMPEU, P. S., TABARELLI, M., ZUANON, J. Brazil's environmental leadership at risk. Science (New York, N.Y.). v. 346, p. 706 - 707, 2014.*

*FLETCHER, I. N., ARAGÃO, L. E. O. C.,* ***LIMA, André****, SHIMABUKURO, Yosio, FRIEDLINGSTEIN, P. Fractal properties of forest fires in Amazonia as a basis for modelling pan-tropical burnt area. Biogeosciences. v. 11, p. 1449 - 1459, 2014.*

***LIMA. André****, SILVA, Thiago S. F., FORMAGGIO, A. R., ARAGAO, Luiz E. FREITAS, R.M., Adami, M., Shimabukuro, Yosio E. Spatial patterns of burn scars and deforestation associated with land use and land cover change processes in the Brazilian Amazon. Applied Geography. 2012.*

*SHIMABUKURO, Yosio E. ;* [*DUARTE, Valdete*](http://lattes.cnpq.br/4428139038250634) *;* [*ARAI, Egídio*](http://lattes.cnpq.br/0049390900009593) *;* [*FREITAS, Ramon M.*](http://lattes.cnpq.br/1332820060598155) *; MARTINI, P. R.;* [***LIMA, André***](http://lattes.cnpq.br/0464617687774083) *. Monitoring land cover in Acre State, western Brazilian Amazonia, using multitemporal remote sensing data. International Journal of Image and Data Fusion, v. 1, p. 1-11, 2010.*

*SHIMABUKURO, Yosio E., DUARTE, V., ARAI, E., Freitas, R. M.,* ***LIMA, André****, VALERIANO, D., BROWN, I., MALDONADO, M. 2008. Fraction images derived from terra MODIS data for mapping burned areas in Brazilian Amazonia. International Journal of Remote Sensing. v. 30, p. 1537 - 1546, 2009.*

*ARAGÃO, Luiz Eduardo, MALHI, Yadvinder, BARBIER, Nicolas, SHIMABUKURO, Yosio,* ***LIMA, André****, ANDERSON, Liana, SAATCHI, Sassan. Climatic seasonality and land use dynamics in Amazonia. Philosophical Transactions of the Royal Society of London. Biological Sciences. v. 363, p. 1779 - 1785, 2008.*

***LIMA, André****, RUDORFF, Bernardo, AGUIAR, Daniel Alves de, ADAMI, Marcos. SHIMABUKURO, Yosio. Spatial distribution and environmental characterization of sugarcane in the Pantanal Biome. Geografia (Rio Claro). v. 34, p. 193 - 204, 2009.*

***LIMA, André****, SHIMABUKURO, Yosio Edemir, ANDERSON, Liana Oighenstein, TOREZAN José Marcelo Domingues, RUDORFF, Bernardo Friedrich Theodor, RIZZI Rodrigo. Integrating multisensors maps to monitor natural vegetation in Mato Grosso, Brazil. Geografia. 2007.*

*MORTON, Douglas, SHIMABUKURO, Yosio Edemir, RUDORFF, B. F. T.,* ***LIMA, André****, FREITAS, Ramon Morais. DEFRIES, Ruth. Conservation challenge at the agricultural frontier: deforestation, fire, and land use dynamics in Mato Grosso. In Ambiente e Água. v. 2, p. 5-20, 2007.*

*LIESENBERG, Veraldo,* ***LIMA, André****, FORMAGGIO, A. R. Terra Satellite Terra products and applications in Global Change issues. Terra Satellite and the global changes. In Geografia (Rio Claro). v. 5, p. 15-34, 2006.*

*ANDERSON, Liana O, ARAGÃO Luiz Eduardo,* ***LIMA, André****, SHIMABUKURO, Yosio Edemir. Mato Grosso Burnt scars detection based on Linear Spectral Mixing Model and vegetation index derived from multitemporal data of MODIS/TERRA sensor in Mato Grosso state, Brazilian Amazon. In Acta Amazonica. 2005.*

*ANDERSON, Liana O, SHIMABUKURO, Yosio E.,* ***LIMA, André****, MEDEIROS, J S. Land cover mapping over Mato Grosso State using Modis Sensor multitemporal data. In Geografia. v. 3, p. 30-38, 2005.*

*HERRMANN, B. C., RODRIGUES, Efraim,* ***LIMA, André****. The landscape as conditioning of edges of forest fragments. In Floresta (UFPR). v. 35, p. 13-22, 2005.*

* 1. Published Conference Proceedings
     1. Refereed Conference Proceedings

*FONSECA, Marisa,* ***LIMA, André****, ANDERSON, Liana, ARAGÃO, Luiz Eduardo. Preliminary assessment of the modeling of fires in the Brazilian Amazon using the principle of Maximum Entropy. In: Anais XVII Brazilian Remote Sensing Symposium, João Pessoa, 2015.*

*VEDOVATO, Laura. JACON, Aline, PESSOA, Ana,* ***LIMA, André****, ARAGÃO, Luiz Eduardo O. C. Detection of burned forests in Amazonia using the Normalized Burn Ratio (NBR) and Linear Spectral Mixture Model from Landsat 8 images. In: Anais XVII Brazilian Remote Sensing Symposium, João Pessoa, 2015.*

*LEITOLD, V.,* ***LIMA, André****, SHIMABUKURO, Y. E. Spatial relation between burnt scars and deforestation in Eastern Amazon region. In: Anais XVI Brazilian Remote Sensing Symposium, Foz do Iguaçu, 2013.*

*FLETCHER, I., MURRAY-TOTAROLO, G., FRIEDLLINGSTEIN, P.,* ***LIMA, André,*** *SHIMABUKURO, Y. E., ARAGÃO, Luiz Eduardo O.C. Fire emissions in tropical forests: refining the SPITFIRE model using remote sensing data In: Anais XVI Brazilian Remote Sensing Symposium, Foz do Iguaçu, 2013.*

***LIMA, André****, ARAGÃO, Luiz Eduardo O.C., DUARTE, V., Formaggio, Antônio Roberto, Shimabukuro, Y. E. Eastern Amazon fires in years of extreme drought: fuel sources. In: Anais XVI Brazilian Remote Sensing Symposium, Foz do Iguaçu, 2013.*

*VERONA, J. D****., LIMA, André****, RISSO, J., SHIMABUKURO, Y. E., RUDORFF, Bernardo, RIZZI, R. Estimating soybean cultivation in priority areas for biodiversity conservation in Mato Grosso State. In: Anais XVI Brazilian Remote Sensing Symposium - SBSR, Foz do Iguaçu , 2013.*

*XAUD, H. A. M., BISPO, P. C., SERVELLO, E****., LIMA, André****, Arenas, J. M., FORMAGGIO, A. R.. 2009. Burnt scars detection in Mato Grosso State using MODIS-TERRA images. In XIV Brazilian Remote Sensing Symposium - SBSR, Natal, 2009.*

***LIMA, André,*** *Shimabukuro, Yosio, ADAMI, M., Aragão, Luiz Eduardo O.C., FORMAGGIO, A. R., Lombardi, R.. 2009. Mapping burnt scars in Brazilian Amazon region applying Linear Spectral Mixing Model on MODIS images XIV Brazilian Remote Sensing Symposium - SBSR, Natal, 2009.*

*ADAMI, M.,* ***LIMA, André****, Freitas, R. M., Monteiro, A. M. V., Moreira, M. A.. 2009. Applying artificial neural networks for agriculture and livestock regionalization in Paraná State. XIV Brazilian Remote Sensing Symposium - SBSR, Natal, 2009.*

*ARAGÃO, Luiz Eduardo O.C, SHIMABUKURO, Yosio,* ***LIMA, André****, ANDERSON, Liana, BARBIER, N., SAATCHI, Sassan. 2009. Using satellite data to study fires in the AmazonIn XIV Brazilian Remote Sensing Symposium - SBSR, Natal, 2009.*

***LIMA, André****, RIBEIRO, M. C., SHIMABUKURO, Yosio, ADAMI, M., TOREZAN, José Marcelo Domingues. 2008. Connectivity potential analysis of Chiroxiphia caudata (Tangará dançarino) populations in a fragmented landscape of the Atlantic Forest. In VIII Seminar on Remote Sensing and Geographical Information System applied to Forestry – SENGEF, Curitiba, 2008.*

*MARTÍN Patricia, GORDILLO, Quintano, C.,* ***LIMA, André****, SHIMABUKURO, Yosio e. 2008. MODIS spectral mixture analysis and burned area mapping in mediterranean countries. In VIII Seminar on Remote Sensing and Geographical Information System applied to Forestry – SENGEF, Curitiba, 2008.*

*SANNA, Thiago,* ***LIMA, André****, FONSECA, L. M. G., RIBEIRO, M. C.. 2007. Assessment of image restoration techniques to enhance the applicability of MODIS images on Amazon floodplain landscape studies In XIII Brazilian Remote Sensing Symposium - SBSR, Florianópolis 2007.*

***LIMA, André****, SHIMABUKURO, Yosio Edemir, ANDERSON, Liana O, TOREZAN, José Marcelo Domingues, RUDORFF, B. F. T., RIZZI, R.. 2007. Land cover map update using TM and MODIS images. In XIII Brazilian Remote Sensing Symposium - SBSR, Florianópolis 2007.*

*ARAGÃO, Luiz Eduardo O.C, SHIMABUKURO, Yosio Edemir,* ***LIMA, André****, ANDERSON, Liana O, Malhi, Y.. 2007. Burned scars in Amazonian forests under extreme drought conditions. In XIII Brazilian Remote Sensing Symposium - SBSR, Florianópolis 2007.*

*SILVA, A. C., PIMENTA, A., BERG, E.,* ***LIMA, André****. 2007. Landscape structure impact on species diversity in forest fragments of Minas Gerais. In XIII Brazilian Remote Sensing Symposium - SBSR, Florianópolis 2007.*

*SHIMABUKURO, Yosio E.,* ***LIMA, André****, RUDORFF, B. F. T.. 2007. Land cover mapping of São Paulo State using fraction images derived from MODIS data. In XIII Brazilian Remote Sensing Symposium - SBSR, Florianópolis 2007.*

***LIMA, André****, ANDERSON, Liana O, TOREZAN, José Marcelo Domingues, SHIMABUKURO, Yosio e. 2005. Effectiveness of the natural vegetation protection in Mato Grosso State: Analyze of ecosystems representativeness of conservation units and indigenous land. In Brazilian Remote Sensing Symposium - SBSR, Goiânia 2005.*

*ANDERSON, Liana O, SHIMABUKURO, Yosio E.,* ***LIMA, André****. 2004. Detection of burned areas based on the linear mixing model using TERRA/MODIS data over the Mato Grosso state, Brazilian Amazon In XI International Symposium - SELPER Santiago 2004*

***LIMA, André****, LIESENBERG, Veraldo. 2004. Comparative study of TM/Landsat and MODIS/EOS-AM1 data to estimate forested areas. In Congresso Brasileiro de Computação, Itajai, 2004.*

***LIMA, André****, SANNA, Thiago, LIESENBERG, Veraldo, ANDERSON, Liana O, SHIMABUKURO, Yosio E. 2004. Evaluation of TERRA/MODIS images applicability for regional deforestation mapping. In XI International Symposium - SELPER Santiago, 2004.*

* + 1. Non-Refereed Conference Proceedings

*ARAGÃO, Luiz Eduardo O.C, BARBIER, N.,* ***LIMA, André****, SHIMABUKURO, Yosio e, Malhi, Y., ANDERSON, Liana O, SAATCHI, S.. 2007. Climate seasonality and land use dynamics in the Brazilian Amazonia. In XI LBA-ECO MEETING XI LBA-ECO MEETING, Salvador, 2007.*

***LIMA, André,*** *SHIMABUKURO, Yosio, Freitas, R. M., Aragão, MORTON, Douglas, ANDERSON, Liana O, RUDORFF, B. F. T., ADAMI, M.. 2007. Mapping Burned Areas in the Brazilian Amazon using MODIS Data In XI LBA-ECO MEETING XI LBA-ECO MEETING, Salvador, 2007.*

*RIBEIRO, M. C., METZGER, J. P****., LIMA, André****. 2007. “LSMETRICS” program to calculate landscape connectivity and percolation indices. In VIII Congresso de Ecologia do Brasil, Caxambu, 2007.*

*MORTON, Douglas, DEFRIES, Ruth, SOUZA, C.,* ***LIMA, André****, WERF, G.. 2007. The contribution of fire to forest degradation in the upper Xingu basin. In XI MEETING LBA-ECO XI MEETING LBA-ECO, Salvador, 2007.*

***LIMA, André****, SHIMABUKURO, Yosio E., RIBEIRO, M. C., ANDERSON, Liana O, Freitas, R. M.. 2006. Real conservation scenarios for the Mato Grosso State: Analysis of landscape structural indexes for the microregions of Alto Teles Pires and Aripuanã. In 10a LBA-ECO Science Team Meeting, Brasília, 2006.*

***LIMA, André****, SHIMABUKURO, Yosio E., TOREZAN, José Marcelo Domingues, ANDERSON, Liana O. 2005. Conservation Unit Systems: Which areas are being preserved in Mato Grosso State? In LBA-ECO 9th Science Team Meeting LBA-ECO, São Paulo, 2005.*

*SANNA, Thiago, NOVO, Evlyn,* ***LIMA, André****. 2004. Evaluation of Multi Sensor Satellite Data for Macrophyte Population Assessment at the Amazon Floodplain. In III Conferência Científica do LBA, Brasilia, 2004.*

*ANDERSON, Liana O, SHIMABUKURO, Yosio E, MORTON, Douglas, DEFRIES, Ruth, LATORRE, Marcelo, JASINSKI, E., HANSEN, M,* ***LIMA, André****. 2004. Rapid assessment of deforestation in Mato Grosso State using MODIS and ETM+ data. In III Conferência Científica do LBA, Brasilia, 2004.*

* + 1. Other

*SHIMABUKURO, Yosio Edemir, DUARTE, Valdete, MOREIRA, Maurício Alves, ARAI, Egídio, RUDORFF Bernardo Friedrich Theodor, FREITAS, Ramon Moraes de,* ***LIMA, André****, Júlio, ARAGÃO Ricardo Lisboa de. Real-time deforestation detection project (DETER) for 2005 and 2006. Technical Report. INPE-NTC. São José dos Campos, 2007.*

*ANDERSON, L.O., SHIMABUKURO, Y.E., LATORRE, M.L., ESPIRITO-SANTO, F.D.B.,* ***LIMA, André****, DUARTE, V., ARAI, E., DEFRIES, R.S., MORTON, D., HANSEN, M., JASINSKY, E. Data collection for forest cover studies, land cover mapping, deforestation assessment and environmental protection of conservation units/indigenous land: fieldwork methodologies. Technical Report. INPE-12304-NTC/368. São José dos Campos, 2005.*

* 1. Conferences, Workshops, and Talks
     1. Workshops

*2017 Active fire detection using Landsat-8/OLI and Sentinel-2/MSI data. In: Tropical Deforestation and Economic Development. World Bank. Washington-DC, USA.*

*2017 Active fire detection using Sentinel-2/MSI data: algorithm advances. In: Collaborative Effort for Biomass Burning Science Exchange. University of Maryland. College Park, USA.*

*2016 VIIRS active fire algorithm tuning on urban areas. In: Collaborative Effort for Biomass Burning Science Exchange. National Institute for Space Research (INPE). São José dos Campos, Brazil.*

*2016 Active fire detection using Sentinel-2/MSI data. In: Collaborative Effort for Biomass Burning Science Exchange. National Institute for Space Research (INPE). São José dos Campos, Brazil.*

* 1. Sponsored Research and Programs – Administered by the Office of Research Administration (ORA)
     1. Grants

SPRINT Joint Research UMD – FAPESP

Collaborative Effort for Biomass Burning Science Exchange

Source: University of Maryland (UMD) / São Paulo Research Foundation (FAPESP)

Budget: $40,000

Period of Performance: March 2016 – February 2017

PIs: Wilfrid Schroeder (UMD), Alberto Setzer (INPE)

Co-PIs : André de Lima (UMD), Renata Libonati (INPE)

* 1. Research Fellowships, Prizes and Awards

*Selected by the Society for Conservation GIS and ESRI Conservation Program to participate in the Global Scholarship Program 2011 from candidates in South America. The program delivered the following courses at the ESRI Headquarters (Redlands, California):*

**- Python language for ArcGIS;**

**- Building Geodatabases;**

**- Advanced Geoprocessing tools**.