

BIOGRAPHICAL SKETCH

Robert E. Griffin, PhD, GISP, CMS

Geospatial Information Analysis & Satellite Remote Sensing

Atmospheric and Earth Science Department | University of Alabama in Huntsville

Nationality: USA

Languages: English (fluent), Spanish (fluent), French (conversational and written)

Clearances: Public Trust Position (2007-present)

Certifications: GIS Professional (GISP/GISCI) 2017-pres., Certified Mapping Scientist in Remote Sensing (CMS-RS/ASPRS) 2018-present

Professional Preparation

Pennsylvania State University	Ph.D. 2012	Anthropology
Pennsylvania State University	M.A. 2005	Anthropology
University of Virginia	B.A. 2002	Anthropology

Appointments

University Science & Educational Partnerships Lead, NASA SERVIR	2018-pres
Associate Professor, Atmospheric Science, UAH	2018-pres
Coordinator of NASA Collaborative Research, ESSC/UAH	2017-pres
Assistant Professor, Atmospheric Science, UAH	2012-2018
Research Associate II, Earth System Science Center (ESSC), UAH	2010-2012
Instructor, Department of Atmospheric Science, UAH	2010-2012
Visiting Professional, NASA-MSFC (USRA), Huntsville AL	2007-2010
Graduate Teaching Assistant, Anthropology, Penn. State University	2003-2007

Research Interests

applications of NASA remote sensing in applied sciences and decision making; land cover land use change; tropical deforestation causes and consequences; satellite and low-altitude aerial remote sensing; environmental archaeology, agriculture, and demography; geospatial intelligence and geographic information science; project management and proposal development; international research in the developing world, especially the Americas

Technical Expertise

- Modeling and spatial analysis using Geographic Information Systems (GIS) for social and natural sciences;
- Remote sensing of human settlement dynamics;
- Geospatial analysis and remote sensing of Earth surface processes (ArcGIS, QGIS, ArcGIS Server, Python, R);
- Satellite image processing, multispectral, hyperspectral, high-spatial, high-temporal resolution, active and passive optical systems (ENVI, Erdas, GEE);

- Field survey and *in situ* data collection with extensive international research experience

Publications

(*indicates current or former student advisor or chair, † indicates current or former student committee member/mentor)

- Herndon, K.*, R. Muench*, E. Cherrington, **R. Griffin** (In Prep). Technical Note: The Impact of Atmospheric Correction on the Accuracy of Water Masks Derived from Spectral Indices. *Remote Sensing Letters*.
- Munroe, T.*, E. Anderson*, **R. Griffin**, L. Hu (In Prep). A Case Study on the Effects of Dam Construction on Sediment Trapping Efficiency in the Lower Mekong Basin Using Dynamic Inputs. *Environmental Modeling and Software*.
- Hernandez Sandoval, B., E. Cherrington, **R.E. Griffin** (Submitted). Application of Earth Observations for setting baselines for monitoring sustainable forest management: the case of Gabon. *Remote Sensing of Environment*.
- Kotikot, S.*, A. Flores[†], **R.E. Griffin**, J. Nyaga, J. Case, R. Mugo, A. Sedah, E. Adams, A. Limaye, D. Irwin (Submitted). Statistical Characterization of Frost Zones: Case of Tea Freeze Damage in the Kenyan Highlands. *International Journal of Applied Earth Observation and Geoinformation*.
- Cherrington, E., **R. Griffin**, E. Anderson*, B. Hernandez Sandoval, A. Flores[†], R. Muench*, K. Markert*, E. Adams, A. Limaye, D. Irwin (Submitted). Use of public Earth Observation data for tracking progress in sustainable management of coastal forest ecosystems in Belize, Central America. *Remote Sensing of Environment*.
17. Swan, B.*[†], **R.E. Griffin** (Accepted). Identifying and Measuring Small Stream Impoundments using a Multi-sensor Data Fusion Approach. *Transactions in GIS*.
16. Weigel, A.*, **R. Griffin**, K. Knupp, A. Molthan, T. Coleman (Accepted). A Spatial Pattern Analysis of Land Surface Heterogeneity and its Relationship to Low Intensity Tornadogenesis. *Earth Interactions*.
15. Markert, K. *, **R. Griffin**, E. Anderson* (Accepted). An open source software suite for building capacity in using the VIC hydrology model. *Open Water*.
14. Dunning, N., J. Brewer, C. Carr, A. Anaya Hernandez, T. Beach, J. Chmilar, L. Grazioso Sierra, **R. Griffin**, D. Lentz, S. Luzzadder-Beach, K. Reese-Taylor, W. Saturno, M. Smyth, F. Valdez (Accepted). Harvesting Ha: Ancient Water Collection and Storage in the Elevated Interior Region of the Maya Lowlands. In *A Path to Sustainability: The Past and Future Role of Water Management*, J. Larmon, L. Lucero, F. Valdez (eds.). University Press of Colorado.
13. Cherrington, E., A. Flores-Anderson[†], R. Thapa, K.E. Herndon*, A. Wahome, P. Oduor, K. Mubea, E. Ouko, N. Hanh Quyen, D. Saah, M. Bako, P. Bartel, F. Mensah, S. Ofori-Ampofo, E. Anderson*, E. Adams, R. Muench*, A. Markert*, A. Nicolau*, W.L. Ellenburg[†], K. Markert*, B. Hernandez Sandoval, A. Limaye, **R. Griffin**, D. Irwin. (2019). Perspectives on the Future Application of SAR in Forest and Environmental Monitoring. In *SAR Handbook: Comprehensive Methodologies for Forest Monitoring and Biomass Estimation*, A. Flores, K. Herndon, R. Thapa, E. Cherrington (eds.). NASA. doi:10.25966/p7xd-0a19
12. Dunning, N., A. Anaya Hernandez, T. Beach, C. Carr, **R. Griffin**, J. Jones, D. Lentz, S. Luzzadder-Beach, K. Reese-Taylor, I. Sprajc (2018). Margin for Error: Anthropogenic geomorphology of Bajo edges in the Maya Lowlands. *Geomorphology*. doi.org/10.1016/j.geomorph.2018.09.002

11. Markert, K.* , C. Schmidt, **R. Griffin**, A. Flores[†], A. Poortiga, D. Saah, R. Muench*, N. Clinton, F. Chistie, P. Someth, K. Kityuttachai, E. Anderson*, A. Aekakkarungroj, D. Ganz (2018). Historical and Operational Monitoring of Suspended Sediment in the Lower Mekong Basin using Landsat and Google Earth Engine Cloud Computing. *Remote Sensing*. 10(909). doi:10.3390/rs10060909
10. Kotikot, S.* , A. Flores[†], **R. Griffin**, A. Sedah, J. Nyaga, R. Mugo, A. Limaye, D. Irwin (2018). Mapping threats to agriculture in East Africa: Performance of MODIS LST for frost identification in Kenya's tea plantations. *International Journal of Applied Earth Observation and Geoinformation*. doi:10.1016/j.jag.2018.05.009
9. Markert, K.* , **R. Griffin**, A. Limaye, R. McNider (2018). Spatial Modeling of Land Use/Land Cover Change and its Effects on Hydrology within the Lower Mekong Basin. In *Land-Atmosphere Research Applications in South and Southeast Asia*, K. Vadrevu, T. Ohara, C. Justice (eds.). Springer Remote Sensing/Photogrammetry. doi:10.1007/978-3-319-67474-2_29
8. Markert, K.* , F. Chishtie, E. Anderson*, D. Saah, **R. Griffin** (2018). On the merging of optical and SAR satellite imagery for surface water mapping applications. *Results in Physics* 9. doi:10.1016/j.rinp.2018.02.054.
7. Mishra, V. [†], W.L. Ellenburg[†], **R. Griffin**, C. Hain, M. Anderson (2018). An Initial Assessment of SMAP Soil Moisture Disaggregation Scheme Using TIR Surface Evaporation Data over the Continental United States. *International Journal of Applied Earth Observation and Geoinformation* 68. doi:10.1016/j.jag.2018.02.005
6. Cole, T.* , D. Wanik, A. Molthan, M. Roman, **R. Griffin** (2017). Synergistic Use of Nighttime Satellite Data, Electric Utility Infrastructure, and Ambient Population to Improve Power Outage Detections in Urban Areas. *Remote Sensing* 9(286). doi:10.3390/rs9030286
5. **Griffin, R.**, J. Cruise, W. Ellenburg[†], M. Al-Hamdan, C. Handyside (2017). Geographic Information Systems (GIS) in Hydrology. In *The Handbook of Applied Hydrology*, V. Singh (ed.). McGrawHill Education.
4. Anderson, E.* , **R. Griffin**, D. Irwin (2016). Implications of different digital elevation models and preprocessing techniques to delineate debris flow inundation hazard zones in El Salvador. In *Characterizing Uncertainties in Natural Hazard Assessment: Modeling and Decision Support* (eds.). AGU Press. doi:10.1002/9781119028116.ch11.
3. Dunning, N., **R. Griffin**, T. Sever, W. Saturno, J. Jones (2016). The Nature and Origins of Linear Features in the Bajo de Azúcar, Guatemala: Implications for Ancient Maya Adaptation to a Changing Environment. *Geoarchaeology* 32(1). doi:10.1002/gea.21568.
2. Dunning, N., **R. Griffin**, J. Jones, R. Terry, Z. Larsen, C. Carr (2015). Life on the Edge: Tikal in a Bajo Landscape. In *Tikal, Paleoecology of an Ancient Maya City*, D. Lentz, N. Dunning, V. Scarborough (eds.). University of Colorado Press. doi:10.1017/CBO9781139227209.007.
1. **Griffin, R.**, T. Sever, R. Oglesby, U. Nair (2014). Agriculture, Deforestation, and Drought Severity. In *The Great Maya Droughts in Cultural Context*, G. Iannone (ed.). University of Colorado Press.

Technical and Contract Reports, Non-Refereed Products

(*indicates current or former student advisor or chair, [†]indicates current or former student committee member/mentor)

- Cherrington, E.A., **Griffin, R.E.**, Anderson, E.R.*, Hernandez Sandoval, B.E., Flores Cordova, A.I.[†], Muench, R.E.*, Markert, K.* (2018) *An assessment of changes in mangrove cover across the Belize Barrier Reef Reserve System World Heritage Site: 1996-2017*. Technical report submitted to Belize Audubon Society. University of Alabama in Huntsville.
- Griffin, R.**, J. Frost[†], T. Finley*, T. Klug*, K. Taylor, B. Au, S. Graves (2018). EarthKAM: ArcGIS Helps Map the Distribution of K-12 Student Photographs from the ISS. In *Esri Map Book Volume 33*. Esri Press.
- Herndon, K.*, R. Muench*, E. Cherrington, **R. Griffin** (2018). Patterns of Surface Water Occurrence from 1986-2016 in the Tahoua Region of Niger: Implications for Water Resource Management by Smallholder Farmers and Pastoralist Communities. In *Esri Map Book Volume 33*. Esri Press.
- Wolff, D., J. Zawislak, C. Kummerow, D. Beuchler, E. Bruning, D. Duncan, S. Goodman, **R. Griffin**, H. Jiang, C. Liu, K. Markert, A. Molthan, W. Petersen, M. Peterson, S. Stevenson (2016). *Global Hydrology Resource Center User Working Group Annual Report, 2016*. Report submitted to NASA EOSDIS/GHRC.
- Kummerow, C., D. Wolff, C. Gentemann, S. Bang, D. Beuchler, R. Blakeslee, E. Bruning, D. Duncan, **R. Griffin**, H. Jiang, C. Liu, K. Markert, A. Molthan, W. Peterson, C. Ruf, J. Zawislak (2015). *Global Hydrology Resource Center User Working Group Annual Report, 2015*. Report submitted to NASA EOSDIS/GHRC.
- Bennett, K., **R. Griffin**, C. Handyside (2015). *UAH Natural and Man-made Hazards Mitigation Plan*. UAH Office of Emergency Preparedness/AL EMA.
- Handyside, C., **R. Griffin**, K. Cowart (2015). *Land Trust GreenPrint: Now and in the Future*. Report submitted to the Land Trust of North Alabama.
- Gentemann, C., C. Kummerow, S. Bang, D. Beuchler, R. Blakeslee, E. Bruning, D. Duncan, **R. Griffin**, H. Jiang, C. Liu, K. Markert, A. Molthan, W. Peterson, C. Ruf, J. Zawislak (2014). *Global Hydrology Resource Center User Working Group Annual Report, 2014*. Report submitted to NASA EOSDIS/GHRC.
- Cowart, K., **R. Griffin**, C. Handyside (2009). *Land Trust GreenPrint: Detection of Land Use Change in Madison County, Alabama from 2000-2009 Utilizing Image Segmentation for Data Fusion between Landsat and Aerial Photography*. Report submitted to the Land Trust of North Alabama.
- Dunning, N., **R. Griffin**, J. Jones, C. Carr, B. Lane, B. Thomas, E. Weaver (2009). Investigaciones de geoarqueología y paleoambiente en la Zona Mayor de Tikal. In *Proyecto de Silvicultura y Manejo de Aguas de los Antiguos Mayas de Tikal: Temporada de 2009*, D. Lentz, L. Grazioso, N. Dunning, V. Scarborough (eds.), Report submitted to the Dirección Patrimonio Cultural y Natural de Guatemala, Guatemala City.
- Dunning, N., **R. Griffin** (2008). Investigaciones Regionales: Canales Antiguos cerca del Ixcan Rio. In *Proyecto Arqueológico San Bartolo: Informe Preliminar No. 7, Septa Temporada 2008*, M. Urquizú, W. Saturno (eds.), Report submitted to the Dirección de Patrimonio Cultural y Natural de Guatemala, Guatemala City.
- Griffin, R.** (2007). Reconocimiento Botanico alrededor de San Bartolo. In *Proyecto Arqueológico San Bartolo: Informe Preliminar No. 6, Sexta Temporada 2007*, M. Urquizú, W. Saturno (eds.), Report submitted to the Dirección de Patrimonio Cultural y Natural de Guatemala, Guatemala City.

- Webster, D., **R. Griffin** (2005). *Experimental Investigation Agricultural Potentials in the Maya Lowlands*. Report submitted to the Research in Graduate Studies Office, College of Liberal Arts, Pennsylvania State University.
- Griffin, R.**, J. Kwoka (2005). Reconocimiento dentro de la Delimitacion de San Bartolo. In *Proyecto Arqueológico San Bartolo: Informe Preliminar No. 5, Quinta Temporada 2005*, M. Urquizú, W. Saturno (eds.), Report submitted to the Dirección de Patrimonio Cultural y Natural de Guatemala, Guatemala City.
- Kwoka, J., **R. Griffin** (2005). Excavaciones en Rasgos de Pedernal alrededor de San Bartolo In *Proyecto Arqueológico San Bartolo: Informe Preliminar No. 5, Quinta Temporada 2005*, M. Urquizú, W. Saturno (eds.), Report submitted to the Dirección de Patrimonio Cultural y Natural de Guatemala, Guatemala City.
- Griffin, R.** (2004). Investigaciones Regionales: Excavaciones en el sitio Chaj K'ek' Cue. In *Proyecto Arqueológico San Bartolo: Informe Preliminar No. 4, Cuarta Temporada 2004*, M. Urquizú, W. Saturno (eds.), Report submitted to the Dirección de Patrimonio Cultural y Natural de Guatemala, Guatemala City.
- Griffin, R.** (2003) Excavaciones en la Plaza Mayor de San Bartolo, Peten, Guatemala. In *Proyecto Arqueológico San Bartolo: Informe Preliminar No. 3, Tercera Temporada 2003*, M. Urquizú, W. Saturno (eds.), Report submitted to the Dirección de Patrimonio Cultural y Natural de Guatemala, Guatemala City.
- Griffin, R.** (2000). *Matthew Stirling's Archaeological Expeditions in Central America*. HSFA/NAA "What's New" Reference Collection Reports. Smithsonian Institution, Washington, D.C.

Professional Conference/Workshop Presentations

(*indicates current or former student advisor or chair, †indicates current or former student committee member/mentor)

Oral Presentations and Posters: (pre-tenure) – 56, (post-tenure, from Aug 2018) – 10

- Bugbee, K. *, **R. Griffin**, B. Freitag, J. Miller, R. Ramachandran, J. Zhang (2019). *Alternative Datasets for Identification of Earth Science Events and Data*, Paper 3579, IGARSS 2019, Yokohama, Japan, July 28-Aug 2.
- Meyer, F., S. Arko, P. Rosen, S. Owen, A. Flores[†], E. Anderson*, E. Cherrington, **R. Griffin** (2019). *SAR-CBC: A Capacity Building Center for the Use of SAR in Decision Making*, 2019 Living Planet Symposium, Milan, Italy, May 13-17.
- Bugbee, K. *, **R. Griffin**, B. Freitag, J. Miller, R. Ramachandran, J. Zhang (2019). *Alternative Earth Science Datasets For Identifying Patterns and Events*, Paper NP4.3/AS5.20/CL5.25/ESSI2.3/GD8.5/HS3.5/NH11.11/SM7.8, EGU General Assembly, Vienna, Austria, April 7-12.
- Buczek, C. *, M. Estes, **R. Griffin** (2018). *Assessing Riparian Buffer Zone Health of Pinhook Creek, Madison County, AL, using NASA's Remotely Sensed Data to Understand Impacts on Water Quality and Quantity*, Poster H43G-2516, AGU Annual Fall Meeting, Washington DC, December 10-14.
- Bateman, S. *, M. Estes, **R. Griffin** (2018). *Analyzing the Relationship Between Influenza-like-Illnesses (ILI's), Mortality Rates, Temperature, Humidity, and Precipitation in Alabama from 2013-2018 using NASA's Remotely Sensed Data*, Poster GH41C-1455, AGU Annual Fall Meeting, Washington DC, December 10-14.

- Herndon, K.* , R. Muench* , E. Cherrington, **R. Griffin** (2018). *Applications of Remote Sensing for Monitoring Surface Water Availability for Pastoralists in Remote Regions of the Nigerien Sahel*, Paper GC43A-07, AGU Annual Fall Meeting, Washington DC, December 10-14.
- Lucey, R.* , W.L. Ellenburg[†] , **R. Griffin**, U. Nair (2018). *Validating the Effectiveness of Treatment on the Productivity of Agricultural Fields in Nepal using Machine Learning Techniques and Space-borne Data*, Paper GC23C-04, AGU Annual Fall Meeting, Washington DC, December 10-14.
- Meyer, F., E. Anderson* , A. Flores[†] , **R. Griffin**, P. Rosen, S. Owen, G. Galindo Garcia, T. Mayorga Torres, A. Lima (2018). *SAR-CBC: A Capacity Building Center for the Use of SAR in Decision Making*, Poster GC11H-1003, AGU Annual Fall Meeting, Washington DC, December 10-14.
- Hernandez, B., **R. Griffin**, E. Cherrington, A. Flores[†] (2018). *Monitoring of landscape level changes in the Mesoamerican Biological Corridor: c.1980-2018*, Poster GC11H-1002, AGU Annual Fall Meeting, Washington DC, December 10-14.
- Nicolau, A.* , K. Herndon* , A. Flores[†] , **R. Griffin** (2018). *A spatial pattern analysis of gold mining-related forest change in the Madre de Dios region, Peru*, Poster GC11H-0998, AGU Annual Fall Meeting, Washington DC, December 10-14.
- Palacios, S., S. Chiao, M. Al-Hamdan, M. Estes, W. Crosson, M. Barik, **R. Griffin**, S. Estes, C. Sack, C. Kowalczak (2018). *Research Experiences for Students in the Center for Applied Atmospheric Research and Education (CAARE) Program*, Poster ED21C-0909, AGU Annual Fall Meeting, Washington DC, December 10-14.
- Griffin, R.**, J. Frost* , T. Klug* , W. Ellett, T. Finley* , M. Klug* , L. Parker* , B. Au, K. Taylor (2018). *Global Patterns of K-12 Student ISS Photo Requests: A Geographic Distribution Analysis Using NASA EarthKAM Metadata*, ESRI Annual User Conference Map Gallery, San Diego, CA, July 9-13.
- Nicolau, A.* , A. Flores[†] , K. Markert* , K. Herndon* , **R. Griffin** (2018). *Integrating Python and ArcGIS to Create a Suite of Tools for Land Cover Classification and Accuracy Assessment on the Madre de Dios Region, Peru*, ESRI Annual User Conference Map Gallery, San Diego, CA, July 9-13.
- Weigel, A.* , **R. Griffin**, K. Knupp, A. Molthan, T. Coleman (2018). *Using GIS to Investigate Land-Atmosphere Interactions Involved in Tornadogenesis*, Paper 9.2. AMS Annual Meeting, Austin, TX, January 7-11.
- Gray, D.[†] , M. Estes, **R. Griffin**, S. Estes (2017). *Utilizing NASA Earth Observations to investigate habitat suitability of the Cape Vulture in the Western Cape Province of South Africa*, Poster B51G-1908. AGU Annual Fall Meeting, New Orleans, LA, December 11-15.
- Markert, K.* , A. Limaye, B. Rushi, E. Adams, E. Anderson* , W.L. Ellenburg[†] , F. Mithieu, **R. Griffin** (2017). *A Multi-Tiered Approach for Building Capacity in Hydrologic Modeling for Water Resource Management in Developing Regions*, Paper PA13E-03. AGU Annual Fall Meeting, New Orleans, LA, December 11-15.
- Burke, A.[†] , L. Schultz, O. Omitaomu, A. Molthan, T. Cole* , **R. Griffin** (2017). *Verification and Enhancement of VIIRS Day-Night Band Power Outage Detection Product*, Poster IN31C-0093. AGU Annual Fall Meeting, New Orleans, LA, December 11-15.
- Herndon, K.* , R. Muench* , E. Cherrington, **R. Griffin** (2017). *An Assessment of Surface Water Detection Methods for the Tahoua Region, Niger*, Poster GC13I-0860. AGU Annual Fall Meeting, New Orleans, LA, December 11-15.
- Markert, K.* , W. Ashmall, G. Johnson, D. Saah, D. Mollicone, A. Sanchez-Paus Diaz, E.

- Anderson*, A. Flores[†], **R. Griffin** (2017). *GeoDash: Assisting Visual Image Interpretation in Collect Earth Online by Leveraging Big Data in Google Earth Engine*, Poster IN23C-0099. AGU Annual Fall Meeting, New Orleans, LA, December 11-15. doi: 10.13140/RG.2.2.12314.54727
- Anderson, E.* , **R. Griffin**, K. Markert* (2017). *Advancing the Citizen Scientist's Contributions to Documenting and Understanding Natural Hazards: A Proof of Concept for Linking Crowdsourced and Remotely Sensed Data on Landslide Hazards in El Salvador*, Paper NH33C-06. AGU Annual Fall Meeting, New Orleans, LA, December 11-15.
- Munroe, T.* , **R. Griffin**, E. Anderson*, K. Markert* (2017). *A Study of the Impact of Dams on Sediment Retention in the Mekong River Basin*, Poster GC51D-0831. AGU Annual Fall Meeting, New Orleans, LA, December 11-15.
- Martinez Gonzalez, A., E. Newton, **R. Griffin**, J. Horack (2017). *Space-Based Remote Sensing for Measuring the Effectiveness of Farm Policies on Agricultural Productivity and Income Distribution: The Case of Mexico and PROCAMPO*, Paper IAC-17-B1.5.12.x41855. IAF International Astronautical Congress, Adelaide, Australia, September 25-29.
- Griffin, R.**, J. Frost[†], T. Finley*, T. Klug*, K. Taylor, B. Au, S. Graves (2017). *EarthKAM: ArcGIS Helps Map the Distribution of K-12 Student Photographs from the ISS*, ESRI Annual User Conference Map Gallery, San Diego, CA, July 10-14.
- Munroe, T.* , G. Tondapu, E. Anderson*, **R. Griffin**, D. Irwin (2017). *Online Dam Inundation Mapping Tool: Model vs Reality*, ESRI Annual User Conference Map Gallery, San Diego, CA, July 10-14.
- Herndon, K.* , R. Muench*, E. Cherrington, **R. Griffin** (2017). *Patterns of Surface Water Occurrence from 1986-2016 in the Tahoua Region of Niger: Implications for Water Resource Management by Smallholder Farmers and Pastoralist Communities*, ESRI Annual User Conference Map Gallery, San Diego, CA, July 10-14.
- Munroe, T.* , E. Anderson*, **R. Griffin**, K. Markert* (2017). *Evaluation of Remote Sensing Methods as Proxy for Salinity Measurements in the Lower Mekong Delta*, Paper 1264.3. AAG Annual Meeting, Boston, MA, April 5-9.
- Herndon, K.* , R. Muench*, E. Cherrington, **R. Griffin** (2017). *Water for Agricultural Smallholders in West Africa: The Impact of Climate Change on Water Body Dynamics in the Tahoua Region of Niger*, Paper 1468.4. AAG Annual Meeting, Boston, MA, April 5-9.
- Kotikot, S.* , A. Flores[†], **R. Griffin**, J. Nyaga (2017). *Mapping threats to agriculture in East Africa: Performance of MODIS LST for frost identification in Kenya's tea plantations*, Paper 1507.5. AAG Annual Meeting, Boston, MA, April 5-9.
- Layne, G. [†], **R. Griffin** (2017). *Using Social Media and GIS to Estimate Flood Extent and Assess Risk of Critical Infrastructure*, Poster 11.4. AMS Annual Meeting, Seattle, WA, January 21-26.
- Finley, T.* , **R. Griffin** (2016). *A remote sensing approach to determining susceptibility of national park forest areas to forecasted changes in precipitation and temperature*, Poster B41G-0534. AGU Annual Fall Meeting, San Francisco, CA, December 12-16.
- Finley, T.* , **R. Griffin**, T. Klug*, S. Harbour, B. Au, S. Graves (2016). *Sally Ride EarthKAM: 15 Years of STEM Education and Outreach from Aboard the International Space Station*, Paper ED24A-06. AGU Annual Fall Meeting, San Francisco, CA, December 12-16.
- Amirazodi, S.* , **R. Griffin**, K. Bugbee[†], R. Ramachandran, A. Weigel* (2016). *Climate Impact and GIS Education Using Realistic Applications of Data.gov Thematic Datasets in a*

- Structured Lesson-Based Workbook*, Paper ED11E-03. AGU Annual Fall Meeting, San Francisco, CA, December 12-16.
- Estes, M., **R. Griffin**, M. Al-Hamdan, S. Estes, W. Crosson, S. Chiao (2016). *Enhancing STEM Education at Minority and Underrepresented Institutions through the Center for Applied Atmospheric Research and Education (CAARE)*, Poster ED43B-0861. AGU Annual Fall Meeting, San Francisco, CA, December 12-16.
- Markert, K.*, **R. Griffin**, A. Limaye, R. McNider, E. Anderson* (2016). *Investigation Into the Effects of Climate Variability and Land Cover Change on the Hydrologic System of the Lower Mekong Basin*, Poster GC23G-1310. AGU Annual Fall Meeting, San Francisco, CA, December 12-16.
- Griffin, R.**, V. Mishra[†], W. Ellenburg[†] (2016). *SMAP Disaggregation using Fine Resolution TIR Surface Evaporation Data over Continental United States*, Poster H31G-1490. AGU Annual Fall Meeting, San Francisco, CA, December 12-16.
- Griffin, R.**, A. Burke*, T. Klug*, T. Finley*, S. Harbour, B. Au, S. Graves (2016). *Student-Tasked EarthKAM Imagery for Societal Benefit and STEM Education*. ESRI Annual User Conference Map Gallery, San Diego, CA, June 27-July 1.
- Klug, T.*, **R. Griffin**, T. Finley*, S. Harbour, B. Au, S. Graves (2016). *Constructing Interactive Tools for Student Acquired Earth Observations*. ESRI Southeast User Conference Education Lightning Talks Series, Charlotte, NC, May 2-4.
- Ogles, M., **R. Griffin**, W. Tadesse, R. Perkins (2016). *Alabama Remote Sensing Consortium (ARSC)*. Paper presented at the Annual GIS Alabama Conference, Gulf Shores, AL, April 20-22.
- Perkins, R., D. Krutz, R. Mueller, E. Carmona, **R. Griffin**, L. Graham, R. Miller (2016). *Teledyne's Multi-User System for Earth Sensing (MUSES)*, Paper 16.013. ASPRS/Joint Agency Commercial Imagery Evaluation (JACIE) Workshop, Fort Worth, TX, April 11-15.
- Perkins, R., R. Mueller, E. Carmona, **R. Griffin** (2016). *Imaging Spectroscopy Applications using the DESIS Hyperspectral Instrument on MUSES*, Paper 16.014. ASPRS/Joint Agency Commercial Imagery Evaluation (JACIE) Workshop, Fort Worth, TX, April 11-15.
- Weigel, A.*, D. Gallagher, **R. Griffin** (2016). *Using GIS for Automated Near Real-time Storm Surge Inundation Mapping and Visualization for the Gulf of Mexico*, Paper 10.1, AMS Annual Meeting, New Orleans, LA, January 10-14.
- Weigel, A.*, **R. Griffin**, K. Bugbee[†] (2015). *Providing Application-Driven GIS Education for Earth System Science*, Poster 4-198, AMS Annual Meeting, New Orleans, LA, January 10-14.
- Weigel, A.*, D. Gallagher, **R. Griffin** (2015). *Automated Flood Hazard Mapping Methods for Near Real-time Storm Surge Inundation and Vulnerability Assessment*, Paper NH23E-08. AGU Annual Fall Meeting, San Francisco, CA, December 14-18.
- Weigel, A.*, **R. Griffin**, K. Bugbee[†] (2015). *Providing Geospatial Education and Real World Applications of Data across the Climate Data Initiative Themes*, Paper PA13B-08, AGU Annual Fall Meeting, San Francisco, CA, December 14-18.
- Griffin, R.**, N. Dunning, T. Sever, W. Saturno (2015). *Linear Features in the Bajo de Azucar, Guatemala: Multiple Origins and Uses*, Paper 350.6. SAA Annual Meeting, San Francisco, CA, April 15-19.
- Sever, T., **R. Griffin** (2015). *A Satellite-Based Perspective on Ancient Climate in Tropical and Desert Regions*, Paper 199.5. SAA Annual Meeting, San Francisco, CA, April 15-19.

- Markert, K.*, **R. Griffin** (2015). *Agent-Based Modeling of Fish Population Dynamics in the Lower Mekong River: Implications of Dams to Fish Habitat Selection, Population Growth Rates, and Reproductive Success of River Carp*, Paper 1476.10. AAG Annual Meeting, Chicago, IL, April 21-25.
- Calamaio, C.*, **R. Griffin**, D. Irwin, B. Howell, D. Landrum (2015). *Intelligent Payload Module Design for Application-Oriented Research*, Poster presented at AUVSI Unmanned Aerial Systems Symposium, Reno, NV, September 12-14.
- Kollmeyer, R.[†], S. McCloud, **R. Griffin**, and K. Knupp (2015). *Quantifying the Impact of Mobile Severe Weather Alerts using GIS*, Paper J6.6. AMS 43rd Conference on Broadcast Meteorology, Raleigh, NC, June 9-12.
- Weigel, A.*, **R. Griffin** (2015). *Yucatan Hurricane Hazard Assessment: A GIS Methodology for Modeling Hurricane Hazards*, Paper 14B.3. AMS Annual Meeting, Phoenix, AZ, January 4-8.
- Griffin, R.**, N. Dunning, T. Sever (2014). *Measuring Ancient Maya Influence on a River Drainage Using Multispectral Satellite Remote Sensing and a Channel Sinuosity Index*, Paper 295.8. SAA Annual Meeting, Austin, TX, April 23-27.
- Griffin, R.**, D. Cook, O. Jordan, Z. Danon, C. DeLeon, C. Tedman, E. Anderson*, T. Sever, S. Christopher (2014). *Climate Change and Sustainable Development in Latin America: Reflections from an Undergraduate Research Abroad Program in Panama*, Paper IAC-14,E1,3,8,x23913. IAF International Astronautical Congress, Toronto, Canada, September 29-October 3.
- Anderson, E.*, **R. Griffin**, D. Irwin (2013). *Implications of different digital elevation models and preprocessing techniques to delineate debris flow inundation hazard zones in El Salvador*, Poster NH23A-1530. AGU Annual Fall Meeting. San Francisco, CA, December 9-13.
- Calamaio, C.*, **R. Griffin**, S. Christopher (2012). *Geospatially Detecting *Saccharum spontaneum*: An invasion of the Panama Canal watershed*, Paper IAC-12,B1,4,14,p1,x12987. IAF International Astronautical Congress, Naples, Italy, October 1-5.
- Dunning, N., K. Tankersley, **R. Griffin**, J. Jones, T. Beach, S. Luzzader-Beach (2012). *Akalche: On the Origins and Maya Use of Peten Bajo Soils*, Paper 167.5. SAA Annual Meeting, Memphis, TN, April 18-22.
- Langford, Z.[†], **R. Griffin**, S. Christopher, C. Calamaio* (2011). *Protecting the Panama Canal Watershed through the Exchange of Geospatial Data*, Paper IAC-11,B1,6,6,x11496. IAF International Astronautical Congress, Cape Town, South Africa, October 3-7.
- Langford, Z.[†], **R. Griffin**, S. Christopher, C. Calamaio*, T. Keeton (2011). *Socio-Environmental Impacts of Land Cover Change in the Panama Canal Watershed*, Paper IAC-11,B1,5,3,x11474. IAF International Astronautical Congress, Cape Town, South Africa, October 3-7.
- Dunning, N., **R. Griffin**, J. Jones, C. Carr, K. Magee (2011). *Life on the Edge: Tikal and the Bajo de Santa Fe*. Paper 119.1. SAA Annual Meeting, Sacramento, CA, March 30-April 3.
- Christopher, S., J. Horack, **R. Griffin**, E. Sempris, Z. Danon (2010). *Employing Space-Based Data and Observations for Understanding Climate Change and Sustainable Development in Latin America and the Caribbean*. Paper IAC-10.B1.1.7. IAF International Astronautical Congress, Prague, Czech Republic, September 27-October 1.
- Sever, T., **R. Griffin**, U. Nair, M. Welch[†] (2009). *Agriculture, Deforestation, and Drought Severity*, Paper 83.4. SAA Annual Meeting, Atlanta, GA, April 22-26.

- Dunning, N., D. Lentz, **R. Griffin**, E. Akpınar, A. Miller, C. Carr, J. Prater (2008). *Paleoenvironment and land use at San Bartolo*. Poster presented at the AAG Annual Meeting, Boston, MA, April 15-19.
- Dunning, N., T. Sever, **R. Griffin** (2008). *Ancient Maya Canals in the Bajo de Azucar, Petén, Guatemala*, Paper 158.5. SAA Annual Meeting, Vancouver, Canada, March 25-28.
- Griffin, R.**, D. Irwin (2008). *La Vision 2010 Para el Proyecto NASA-SERVIR: Su Desarrollo alrededor de Productos Automatados*. Paper presented at the CAFTA-DR1 SERVIR Workshop. Santiago, Dominican Republic.
- Kwoka, J., **R. Griffin** (2007). *Lending a Hand: The Organization of Labor during the Middle and Late Preclassic at San Bartolo, Guatemala*. Paper presented at the 3rd Maya Lithics Conference, Guatemala City.
- Lentz, D., C. Carr, **R. Griffin**, N. Dunning (2007). *Ground truthing of satellite images: Tropical forests and Preclassic Maya agricultural terraces in the vicinity of San Bartolo, Guatemala*. Paper presented at the Society for Economic Botany Annual Meeting, Chicago, IL, June 4-7.
- Griffin, R.**, J. Kwoka, T. Garrison (2006). *Remote Sensing Chert Exploitation Zones around San Bartolo, Peten, Guatemala*. Computer Applications and Quantitative Methods in Archaeology Annual Meeting, Fargo, ND, April 2-4.
- Griffin, R.**, W. Saturno, T. Sever (2006). *Putting Us on the Map: Remote Sensing the Ancient Maya Landscape around San Bartolo, Peten, Guatemala*, Paper 48.2. SAA Annual Meeting, San Juan, PR, April 26-30.

Invited Talks

- Griffin, R.** (2018). *Building Capacity in the Application of Earth Observations*. Geography Seminar Series, Mississippi State University, Starkville, MS, November 2018.
- Griffin, R.** (2017). *Teaching Applied GIS and Climate Impacts using Data.gov Thematic Datasets*. Integrating GIS and Atmospheric Science Symposium, National Center for Atmospheric Research (NCAR), Boulder, CO, June 2017.
- Griffin, R.** (2017). *Building Global Relationships for more Resilient Use of Satellite Datasets*. Neil Armstrong Space Symposium, Ohio State University, Columbus, OH, May 2017.
- Griffin, R.** (2017). *On Being Interdisciplinary and Taking Risks*. UAH Honors Colloquium, Huntsville, AL, April 2017.
- Griffin, R.** (2016). *Recent Developments in Applied Remote Sensing and GIS at the University of Alabama in Huntsville*. American Society of Civil Engineers (ASCE) North Alabama Lecture Series, Huntsville, AL, November 2016.
- Griffin, R.** (2016). *Applied Remote Sensing and GIS at the University of Alabama in Huntsville*. Geosciences Colloquium Series, Auburn University, Auburn, AL, November 2016.
- Griffin, R.**, M. Ogles, W. Tadesse, R. Perkins (2016). *Alabama Remote Sensing Consortium (ARSC): An industry-higher education consortium and a unique resource for the state of Alabama*. Paper presented at the Annual GEOHuntsville Meeting, Huntsville, AL, May 2016.
- Griffin, R.** (2015). *Estimating Population Size among the Ancient Maya and Implications for Contemporary Populations in Northern Guatemala*. Invited Lecturer Series, GIST Group, Oak Ridge National Lab, Knoxville, TN, March 2015.
- Griffin, R.** (2015). *Ancient Populations, Agriculture, and Recent Archaeology in the Maya Region*. Invited Lecturer Series at University of Georgia Integrative Conservation Program, Athens, GA, February 2015.

- Griffin, R.** (2014). *The State of the Geospatial Science Program at UAH*. Paper presented at the Annual GEOHuntsville Meeting, Huntsville, AL, November 2014.
- Griffin, R.** (2012). *Building a GIS/Remote Sensing Program at UAHuntsville*. Paper presented at the Annual GEOHuntsville Meeting, Huntsville, AL, November 2012.
- Griffin, R.** (2011). *A History of Global Deforestation and Why You Should Go Plant a Tree*. Paper presented Earth Day 2011, University of Alabama, Huntsville, AL, April 2011.
- Griffin, R.** (2010). *A History of NASA Space Archaeology and Current Research*. Invited Lecture Series at University of Alabama, Dept. of Anthropology, Tuscaloosa, AL, March 2010.
- Griffin, R.** (2010). *Deforestation, Climate, and the Archaeology of Human Response*. National Park Service Research Lecture Series. Online, June 2010.
- Griffin, R.** (2010). *Space Archaeology at NASA: Landcover Change and Humans and SERVIR: The Regional Visualization and Monitoring System*. Earth to Sky IV (NASA, NPS, NFWS) Conference, Harpers Ferry WV. March 2010.
- Griffin, R.** (2008). *Maya Agriculture and Settlement Patterns: A Remote Sensing Perspective*. Paper presented at NSSTC -MSFC/UAH Lecturer Series, Huntsville, AL, February 2008.
- Griffin, R.** (2008). *Estudios Recientes en la NASA alrededor de los Mayas y su Colapso*. Paper presented at the CAFTA-DR Guatemala SERVIR Workshop, Univ. Fr. Marroquin, Guatemala City, CA, March 2008.
- **Numerous additional presentations to University and civic groups*

Synergistic Activities

- Collaboration with **NASA SERVIR** Program (servirglobal.net) for satellite data and product visualization, environmental applications, and project management, 2007-present
- Director and founding member of the **Alabama Remote Sensing Consortium (ARSC)**, a university-industry partnership with industry contributions valued at over \$6M, 2015-present
- Lead for the **UAH Center of Academic Excellence in Geospatial Sciences (CAE-GS)** Designation from National Geospatial Intelligence Agency/US Geological Survey, 2017-present.
- Founder and principal contact person for **UAH-Alaska Satellite Facility/University of Alaska Fairbanks Master Administrative Agreement**, which promotes joint education and research opportunities spanning North America, 2017-present
- Board of Directors member for the **City of Huntsville Air Pollution Control Board**, 2018-present.
- Board of Directors member **GeoHuntsville** (geohuntsville.org), a local government, educational institution, and industry initiative to promote the geospatial field in the region, 2015-present, board member/2010-2015, member and education working group member
- User Working Group Member, **NASA Global Hydrology Resource Center (GHRC DAAC)**, 2015-2017
- Institutional Faculty Representative for the **Council on Undergraduate Research (CUR)**, 2012-present
- University of Alabama System Representative for **Western North America InSAR (WInSAR) Consortium** (winsar.unavco.org/), 2016-present

- **Alabama Science and Engineering Fair (ASEF)**, judge and judging coordinator, 2014-present
- **Alabama GIS Advisory Committee**, member and representative for the Office of the State Climatologist (P. Henderson, chair), 2015-present
- Science Advisor for the **NASA DEVELOP** workforce development program, part of Applied Sciences/Capacity Building, 2012-present
- UAH Principal for **AlabamaView**, a consortium formed to promote research, education, and outreach of remote sensing and geographic information systems to Alabama, 2016-present
- Collaboration with Smithsonian's Tropical Research Institute (**STRI**) for historical airphoto landcover change project in Panama, focused on digitization and archival of rare aerial photographs (2010-2012)

Collaborators

- Nick Dunning, Vernon Scarborough, David Lentz (University of Cincinnati)
- Sen Chiao, Craig Clements (San Jose State University)
- Lauren Parsons, Michael Read (ISS National Lab Office)
- Kenton Ross, Lindsay Rogers, Michael Ruiz (NASA DEVELOP)
- Tim Murtha (Univ. Florida) & David Webster (Pennsylvania State University)
- Wubishet Tadesse, Dawn Lemke (Alabama A&M University)
- Daniel Irwin, Ashutosh Limaye (NASA SERVIR)
- Andrew Molthan, Chris Hain (NASA SPoRT)
- Nettie LaBelle, Franz Meyer (Univ. Alaska Fairbanks/Alaska Satellite Facility)
- Alex Tewfik (Wildlife Conservation Society)
- Deepak Mishra (University of Georgia)
- Krishna Vadrevu (NASA SARI)
- Christine Lee (NASA Jet Propulsion Laboratory)

Teaching

Courses Developed & Taught (*) and Taught (†) (UAH, 2010-present):

- Introduction to Environmental Earth Science (*ESS103*)*
- Python for GIS (*ESS408/508*)*
- Introduction to GIS (*ESS413/513*)[†]
- Geospatial Applications (*ESS414/514*)*
- Advanced GIS (*ESS415/515*)*
- Climate Change and Sustainability in Latin America (*ESS490/590*)[†]
- Earth Science Capstone Project (*ESS498/499*)[†]
- Land Use Applications and Sustainability (*ESS610*)*
- Advanced GIS for Earth and Atmosphere Problems (*ESS612*)*

Graduate Students

Total Master's Students Funded/Advised (as of April 2019): 11 current, 12 graduated

Total Graduate Student Committee Service (current and past): 8

Chair & Advisor (fully funded), Current:

- Katherine Strattman (MS ESS, UAH, exp. 2020, currently GRA NASA SERVIR)
- Claire Nauman (MS ESS, UAH, exp. 2020, currently GRA NASA SERVIR)
- Jeremy Frost (MS ESS, UAH, exp. 2020, currently GTA UAH)
- Andrea Puzzi Nicolau (MS ESS, UAH, exp. 2020, currently GRA NASA SERVIR)
- Rebekke Muench (MS ESS, UAH, exp. 2020, currently NASA SERVIR)
- Maggi Klug (MS ESS, UAH, exp. 2019, currently GRA EarthKAM)
- Leah Parker (MS ESS, UAH, exp. 2019, currently GRA EarthKAM)
- Ronan Lucey (MS ESS, UAH, exp. 2019, currently GRA NASA SERVIR)
- Kaylin Bugbee (MS ESS, non-thesis, UAH, exp. 2019, currently NASA/UAH DSIG)
- Jeanne leRoux (MS ESS, UAH, exp. 2019, currently NASA/UAH DSIG)
- Travis Rael (MS ESS, UAH, exp. 2019, currently TVAR)

Chair & Advisor (fully funded), Graduated:

- Kelsey Herndon (MS ESS, UAH, 2018, currently NASA SERVIR), Thesis: *Applications of Remote Sensing for the Monitoring of Surface Water Dynamics in the Sahel.*
- Thailynn Munroe (MS ESS, UAH, 2018, currently World Resources Institute, DC), Thesis: *An Exploration into the Effect of Dam Construction on Sediment Trapping Efficiency in the Lower Mekong Basin.*
- Tim Klug (MS ESS, UAH, 2018, currently Teledyne Brown Engr.), Thesis: *Discrimination of Freshwater Macrophyte Depth and Coverage in situ Using Hyperspectral Remote Sensing.*
- Tyler Finley (MS ESS, UAH, 2018, currently Teledyne Brown Engr.), Thesis: *Assessing the Ability of Socioeconomic Factors to Predict Changes in Urban Vegetation: A Case Study of Seven Cities*
- Susan Malaso Kotikot (MS ESS, UAH, 2017, currently ORNL GIST), Non-thesis
- Amanda Weigel (MS ESS, UAH, 2016, currently NASA GHRC), Thesis: *A Spatial Pattern Analysis of Land Surface Heterogeneity and its Relationship to Tornadogenesis*
- Kel Markert (MS ESS, UAH, 2016, currently NASA SERVIR), Thesis: *Investigation into the Effects of Climate Variability and Land Cover Change on the Hydrologic System of the Lower Mekong Basin*
- Tony Cole (MS ESS, UAH, 2016, currently ORNL GIST), Thesis: *Characterization of Nighttime Light Variability for Power Outage Detection*
- Jordan Bell (MS ATS, UAH, 2015, currently NASA SPoRT), Thesis: *The Development of a Near Real-Time Hail Damage Swath Identification Algorithm for Vegetation*
- James Brenton (MS ESS, UAH 2014, currently Jacobs Engr.), Thesis: *A Statistical Comparison of Four Precipitation Climate Datasets in the Ganges-Brahmaputra-Meghna River Basin*
- Eric Anderson (MS ESS, UAH, 2013, currently NASA SERVIR), Thesis: *Analysis of Rainfall-Triggered Landslide Hazards Through the Dynamic Integration of Remotely Sensed, Modeled, and In Situ Environmental Factors in El Salvador*
- Melanie Phillips (MS ESS, UAH, 2013, currently ORNL GIST), Thesis: *Forest Transitions and Environmental Policy in the Western Ghats of India*

Committee Member:

- Robert Junod (PhD ATS, UAH, exp. 2018, currently UAH ESSC)
- Garrett Layne (MS ESS, UAH, 2017)
- Vikalp Mishra (PhD CEE, UAH, 2017, currently NASA NPP)
- Benjamin Swan (MS GEO, Auburn University, 2017, currently ORNL GIST)
- Walter Lee Ellenburg (PhD CEE, UAH, 2016, currently NASA SERVIR)
- Nishanth Goli (MS MAE, UAH, 2014, currently UAH RSC)
- Africa Flores (MS ESS, UAH, 2014, currently NASA SERVIR)
- Chris LaLiberte (MS BYS, UAH, 2013)

Memberships, University, and Professional Activities & Service

University of Alabama in Huntsville: Honors Council, member (2013-16); College of Science Dean Search Committee, member (2013); Wernher von Braun Symposium Student Poster Session, chair (2013-present); Earth Science Student Association, faculty advisor (2012-present); Charger Foundations Task Force, member (2014-16); Alabama Science & Engineering Fair, judge/judging coordinator (2014-present)

University of Alabama in Huntsville College of Science: CoS Curriculum Committee, member (2013-present);

University of Alabama in Huntsville Atmospheric Science Department: Undergraduate Curriculum Committee, chair (2013-present); Faculty Search Committee, member (2015); Chair Search Committee, member (2014); SACS Compliance, MS ESS, member/lead (2015-present)

Memberships: Association of American Geographers (2015-present); American Geophysical Union (2016-present); American Society of Photogrammetry and Remote Sensing (2016-present); Computer Applications and Quantitative Methods in Archaeology (2006-08); Society of American Archaeology (2007-present)

Reviewer: Water (2012-present); Earth Science Informatics (2014-present); IEEE Earthzine (2016-present); Transactions in GIS (2017-present); Southeastern Geographer (2017-present); International Journal of Digital Earth (2018-present)

Proposal Reviewer: NASA Postdoctoral Program, NPP (2016-present); EPA ACE (2014); NOAA UAS Program (2017)

K-12 Lectures: Boy Scouts of America; APES Courses Madison City Schools

Editorial Boards: Southeastern Geographer, AAG (2015-present);

Honors and Awards

UAH College of Science Outstanding Faculty Award (2019)

UAH Research and Creative Activity Mentor Award (2015)

NASA Graduate Student Research Program (GSRP) Fellowship (2005-07)

Funded Research

Research Grant Statistics:

22 Grants and Contracts (2005-present)

48 Submitted Proposals

\$11.63M in Total Funding awarded as PI or Co-I (2005-present)

\$6.38M awarded to UAH/Griffin

UAH Internal Awards

- 2017 UAH VPR/COS/ESSC - \$32k, Student Collaboration and Innovation Lab (GEO)
- 2013 UAH CCFRs - \$20k total; PI w/ K. Knight & J. Stoutenborough (\$5k); Co-I w/ D. Landrum (\$5k); Co-I w/ K. Hawk (\$5k); Co-I w/ A. Word (\$5k)
- 2013 Research Infrastructure Grant (RIF) w/ T. Sever - \$36k; UAH OVPR: “Proposal to Establish the Human Dimensions, Discovery, and Decision-Making Lab (HD3)”
- 2012 Public Programming Grant w/ A. Alexander - \$2k; UAH Humanities Center: Speaker for “UAH Latin America Cultures and Environments Seminar Series”
- 2010 URII, w/ S. Christopher - \$45k; UAH OVPR: “Land cover change study and historical airphoto digitization, Panama Canal Watershed”

Active Research Grants & Contracts

- 2018 NSF GEO Research Experiences for Undergraduates (REU) Site, Remote Sensing of Land-Atmosphere Systems, 3-yr UAH PI Total \$355k (PI Griffin)
- 2018 NASA Applied Sciences/SLSCVC A.8, Climate-Influenced Nutrient Flows and Threats to the Biodiversity of the Belize Barrier Reef Reserve System, 3-yr \$724k (PI Griffin)
- 2018 National Geographic Society, Forecasting Harmful Algal Blooms through AI to Mitigate Environmental Impact: A Case Study for Lake Atitlan, Guatemala, 1-yr \$128k (PI Flores, Co-I Griffin)
- 2018 NASA NIAC, Marsbee-Swarm of Flapping Wing Flyers for Enhanced Mars Exploration, 1-yr UAH C.K. Kang PI \$125k, (Co-I Griffin)
- 2018 NASA Applied Sciences Program, GEO AmeriGEOSS and Human Planet Initiatives Associate Program Manager, 3-yr \$282k (UAH PI Griffin)
- 2018 NASA SAR-CBC: A Capacity Building Center for the Use of SAR in Decision Making, 3-yr UAF PI F. Meyer, Total \$375k, (UAH PI Griffin \$157k)
- 2018 NASA South/Southeast Asia Research Initiative (SARI) and Global Land Cover/Land Use Change, 2-yr NASA K. Vadrevu PI \$150k (UAH PI Griffin \$150k)
- 2017 UAF-UAH Master Agreement, 1-yr + renewal (PI Griffin)
- 2017 NASA SERVIR Science Applications, 5-yr projected total (\$8.2M) (PI Griffin)
- 2017 NASA DEVELOP Science Support, 5-yr projected total (\$150k) (PI Griffin)
- 2015 NASA MUREP: Center for Applied Atmospheric Research and Education, 5-yr SJSU PI Total \$4.6M (UAH PI Griffin \$415k)
- 2015 NASA ISS National Lab Office: EarthKAM, Space Camp Earth Observation Lab, 5-yr USSRC PI Total \$1.9M (UAH PI Griffin \$836k)

Past Research Grants & Contracts

- 2017 Belize Audobon Society, Assessment of the Total Mangrove and Littoral Forest Cover within the Belize Barrier Reef Reserve System (BBRRS) World Heritage Site, 1-yr (\$23k) (Co-I Griffin)
- 2015 NASA GHRC/Ramachandran, Research on Severe Weather and GIS Linkages (\$72k)
- 2014 FEMA UAH sub-k - \$85k; Natural Hazard Evaluation and Mitigation Plan for the UAH Campus
- 2006 Graduate Student Research Fellowship (GSRP) - \$42k; NASA, MSFC Space Archaeology
- 2006 Hill Foundation Pre-comprehensive Fellowship - \$2k; PSU, Dept of Anthropology

- 2003 Graduate Research Assistantship - \$76k; PSU, Dept of Anthropology
- 2005 Research Grant - \$2k; PSU, Research in Graduate Studies Office
- 2000 Summer Research Stipend - \$2k; National Anthropological Archives, Smithsonian

Student Awards

- 2018 Alabama Space Grant Consortium, NASA Space Grant Scholar, \$1k (H. Baldwin)
- 2017 Planet, data access (K. Herndon)
- 2016 Alabama Space Grant Consortium, NASA Space Grant Scholar, \$1k (S. Amirazodi)
- 2014 EPA GRO Fellowship, \$50k (M. Etten-Bohm)
- 2014 UAH IUCGSRP OVPR-Baron Fellowship, \$13k (R. Kollmeyer)
- 2013 UAH IUCGSRP OVPR-Baron Fellowship, \$13k (A. Weigel)