

Center for
Geospatial Analytics

Awards Banquet



Saturday, October 26, 2019

Talley Student Union
North Carolina State University
Raleigh, North Carolina

Welcome to the first annual awards banquet for the Center for Geospatial Analytics!

Tonight, we honor achievements since Summer 2018 by the exceptional students, faculty and staff at our center.

Thank you and congratulations for all that you do as a member of the center community!

Our Community

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Geospatial Analytics Ph.D. Students 2019-2020

Student

Megan Coffey
Elyssa Collins *
Mollie Gaines *
Xiaojie Gao *
Umesh Gupta
Byron Ifediora
Nikki Inglis
Kate Jones *
Kimia Karimi
Nick Kruskamp
Zekun Lin
Rohith Matli
Ian McGregor *
Katie McQuillan *
Garrett Millar
Kellyn Montgomery
Vini Perin *
Shannon Ricci
Laura Tomkins *
Vishnu Vivek Nanda
Ruixue Wang
Corey White
Thom Worm *
Alex Yoshizumi *

Advisor

Helena Mitasova
Ross Meentemeyer
Mirela Tulbure
Joshua Gray
Raju Vatsavai/Ross Meentemeyer
Bethany Cutts
Jelena Vukomanovic
Robert Scheller
Daniel Obenour/Sankar Arumugam
Ross Meentemeyer/Joshua Gray
Ross Meentemeyer/Adam Terando
Daniel Obenour
Joshua Gray
Katherine Martin
Helena Mitasova
Helena Mitasova
Mirela Tulbure
DelWayne Bohnenstiehl
Sandra Yuter
Perver Baran/Laura Tateosian
Aaron Hipp
Helena Mitasova/Ross Meentemeyer
Ross Meentemeyer
Jelena Vukomanovic

* Began Fall 2019

CGA-Affiliated Graduate Students 2019-2020

Student

Advisor

Daniela Agostini ^a	Jelena Vukomanovic
Claudia Alberico ^b	Aaron Hipp
William Beam ^a	Aaron Hipp
Laura Belica ^c	Stacy Nelson
Devon Gaydos ^c	Ross Meentemeyer
Jing-Huei Huang ^b	Aaron Hipp
Martine Mathieu ^d	Stacy Nelson
Joshua Randall ^b	Jelena Vukomanovic/Bethany Cutts
Paul Schrum ^c	Stacy Nelson
Jashira Torres ^c	Stacy Nelson
Margaret van Bakergem ^b	Aaron Hipp

CGA-affiliated graduate students are advised by faculty fellows, funded by assistantships through the center, and seated in center space. The students above are seeking degrees in the following departments:

^a M.S.; Parks, Recreation & Tourism Management

^b Ph.D.; Parks, Recreation & Tourism Management

^c Ph.D.; Forestry & Environmental Resources

^d M.S.; Forestry & Environmental Resources

Master of Geospatial Information Science & Technology (MGIST) Students Fall 2019

Eric Adams	Tom Green	Kelsey Mills	Brian Van Wyk
James Albert	Brooke Hatcher	Michael Mirolli	John Vargas
Brian Anderson	Eli Heetderks	Aurelia Mitchell	Shannon Veraldi
Eric Anderson	Curran Hellgeth	Tara Mitchell	Sandra Watkins
Blake Baines	John Hill	Ursula Moley	Matthew Watts
Kurt Baker II	Russell Hill	Dustin Murray	Lawrence Webb
Sara Barker	Trey Hinton	Jaimie Nevins	JD Wheaton
Daniel Behnke	Dallas Hoffman	Travis Newton	Devin Whitney
Ashley Bennett	Xena Hong	Chase Nicholas	Caleb Williams
Derek Blackmon	Reid Hutchins	Justin Oakley	Calaen Wilson
Adam Blythe	Ian Johnson	Daniel Oberrender	Dylan Wingle
Andrew Boschen	Mary Johnson	Jennifer Parra-MacDougall	Caroline Wood
Tamika Brown	Matthew Johnson	William Parrish	Hubert Yun
Robert Carion	Alli Jones	Heather Paxson	Shon Zimmerman
Michael Caslin	Martine Kamabu	Frankie Pettit	
Justin Castrati	Todd Kesselring	Gardner Pierson	
Charlie Charping	Brittany Kiser	Christine Pilato	
Matthew Cobb	David Kist	Jared Poe	
Benjamin Colia	Justin Klein	Madeline Pope	
Anja Collette	Thomas Koch	Andrew Potter Jr.	
Matt Conard	Laurel Krynock	Ben Rau	
Joel Conrad	Casandra Laskowski	Alexander Reinwald	
Brett Cox	Chad Leftwich	Elizabeth Robinson	
John Cummings III	Raven Li	Jillian Robson	
Jeremy Davis	Colleen Lippert	Harold Rogers	
Victor Dawson	Kelsey Little	Jonathan Schwartz	
Judy Dornier	Alex Lowry	Allie Scott	
Julius Emanuel	Xingli Ma	Sarah Shefte	
Peter Erlenbach	Benjamin Masters	Stephen Shepard	
Sean Farrell	Ben Maxson	Kari Signor	
Chandler Fields	Chanelle McArthur	Greyson Smith	
Michael Forte	Christopher McDonald	Lucian Stewart	
Samuel Franklin	Taylor Metcalf	Guillermo Valenciano	
Robert Fyfe	William Meyers	Benjamin Van Wagener	

Graduate Certificate in GIS Students Fall 2019

Ahmed Arif	Garrett Johnson	Wyatt Pesta	Elisabeth Webster
Asia Askew	Justin Karl	Frankie Pettit	Dylan White
Sahand Azarby	Caroline Ketcham	Mandy Posgai	John Whitley Jr.
Mikaela Bailey	Shannon Koss	Andrew Potter Jr.	Ashley Wileman
Laura Basnight	Melissa Lacroce	Jennifer Primrose	Chantel Williams
Jon Beauchaine	Melinda Lambert	Rebecca Rahn	Calaen Wilson
Elena Beckman	Austin Larson	Stacie Reckling	Kristin Wing
Devon Borgardt	Samantha Lee	James Rennie	Paige Yelen
Patrick Brittain	Rui Liu	Logan Richardson	Hubert Yun
Glenn Burton	Keaton Long	Stephen Richardson	Margaret van Bakergem
Ellie Cardenal	Aaron Mackey	Jose Rivas	
Olivia Caretti	Raymond Magalski	Nadia Robtoy	
Jacob Copper	Jacob Makens	Megan Rodgers	
Chelsea Davis	Kaitlyn Markey	Adrienne Rogers	
Colin Dickey	Tyler Massaro	William Ruark	
Joe Donlon	Mark Massing	Jacob Rudolph	
Noah Donnell-Kilmer	Elisabeth McClain	Jacob Schuyler	
Annie DuPre-Reynolds	Carol McCollum	Jeffrey Serr	
Trevor Farthing	Meaghan Mcclenny	Sarah Shefte	
Christopher Franz	J. Christina Mitchell	Ashlyn Shore	
James Goethe	Tara Mitchell	Kari Signor	
Alexander Goodrich	Philip Moore	Leigh Sitler	
Katia Griffin-Jakymec	Gary Morehouse	Emily Soper	
Rebecca Hahn	Russell Morrison	Shaun Sorensen	
Justin Harcum	Matthew Moy	James Stanley	
Jenna Hartley	Leanna Muroski	Rose Stroup	
Nicolette Hawkins	Kenneth Nagel	Alexis Swanson	
Ryan Held	Jaimie Nevins	Emily Terrell	
Bryson Hester	Richard O'Hara	Aidan Thurling	
Lauren Holmes	Mark O'Leary	Nicholas Tillson	
Reid Hutchins	Michael O'Neill	Lori Townsend	
Eric Hutson	Miguel Palima	Daniel Turner	
Kevin Jeffery	Mia Partlow	Katrina Vernon	
Wendi Jiang	Alex Penny	Xi Wang	

Center for Geospatial Analytics Faculty Fellows

Sankar Arumugam ^{a,*}

Perver Baran ^{b,*}

Emily Berglund ^a

Bonnie Blaimer ^c

DelWayne Bohnenstiehl ^{d,*}

Paul Byrne ^d

Bethany Cutts ^{e,*}

Ryan Emanuel ^f

Andrew Fox ^g

Joshua Gray ^{f,*}

David Hill ^g

Anders Huseth ^c

Aaron Hipp ^{e,*}

Yu-Fai Leung ^e

Gustavo Machado ^h

Katherine Martin ^{f,*}

Helena Mitasova ^{d,*}

Natalie Nelson ⁱ

Stacy Nelson ^f

Daniel Obenour ^{a,*}

Chris Osburn ^d

Krishna Pacifici ^f

Bill Rand ^j

Brian Reich ^k

Robert Scheller ^{f,*}

Laura Tateosian ^{b,*}

Adam Terando ^{l,*}

Mirela Tulbure ^{f,*}

Raju Vatsavai ^{m,*}

Jelena Vukomanovic ^{e,*}

Benjamin Watson ^m

Karl Wegmann ^d

Sandra Yuter ^{d,*}

^a Civil, Construction & Environmental
Engineering

^b Center for Geospatial Analytics

^c Entomology and Plant Pathology

^d Marine, Earth & Atmospheric Sciences

^e Parks, Recreation & Tourism
Management

^f Forestry and Environmental Resources

^g Landscape Architecture

^h Population Health and Pathobiology

ⁱ Biological and Agricultural Engineering

^j Business Management

^k Statistics

^l Applied Ecology

^m Computer Science

* Currently advising a Geospatial Analytics
Ph.D. student

Center for Geospatial Analytics Personnel

Zachary Arcaro	Assistant Director of Operations
Mary Hicks	Business Service Coordinator
Justyna (Inia) Jeziorska	Research Assistant
Chris Jones	Research Associate
Shannon Jones	Temporary Research Associate
Rachel Kasten	Graduate Services Coordinator
Wanwan Liang	Postdoctoral Scholar (Meentemeyer/C. Jones)
Ross Meentemeyer	Center Director & Director of Graduate Programs (Ph.D.)
Helena Mitasova	Associate Director of Geovisualization
Eric Money	Associate Director of Professional Education & Director of Graduate Programs (MGIST)
Okan Pala	Research Associate
Vaclav (Vashek) Petras	Research Software Engineer
Anna Petrasova	Research Software Engineer
Juliana Quist	GIS Research Assistant
Georgina Sanchez	Postdoctoral Scholar (Meentemeyer/Terando)
Makiko Shukunobe	Research Technologist
Kunwar (Krishna) Singh	Postdoctoral Scholar (Meentemeyer/Vukomanovic)
Megan Skrip	Science Communicator
Bill Slocumb	Research Associate
Lindsey Smart	Postdoctoral Scholar (Vukomanovic)
Stacy Supak	Assistant Teaching Professor
Vaishnavi Thakar	Assistant Teaching Professor
Raju Vatsavai	Associate Director of Computing & Technology
John Vogler	Research Scholar

Student Honors

Fellowships

Diversity Enhancement Recruiting Fellowship

2018–2019

Byron Ifediora

Global Change Fellowship

2018–2019

Zekun Lin

2019–2020

Kate Jones

Katie McQuillan

University Graduate Fellowship

2018–2019

Megan Coffey

Nikki Inglis

2019–2020

Kate Jones

Thom Worm

Special mention: Shannon Ricci was among the top 20 applicants for the Dr. Nancy Foster Scholarship Program 2018–2019.

Travel Awards & Grants

Geospatial Analytics Travel Award

Fall 2018

Nikki Inglis

Nick Kruskamp

Kellyn Montgomery

Spring 2019

Nikki Inglis

Nick Kruskamp

Kellyn Montgomery

Vishnu Vivek Nanda

Corey White

Fall 2019

Megan Coffey

Umesh Gupta

Nick Kruskamp

Shannon Ricci

Graduate School Travel Awards

Megan Coffey - *Workshop/Short-Course Funding*

Conference-Specific Travel Grants

Megan Coffey - *NSF Travel Grant to attend AAG-UCGIS Summer School 2019*

Kellyn Montgomery - *G. Herbert Stout Student Award to attend NCGIS 2019*

Umesh Gupta - *NSF Student Travel Award to attend ACM SIGSPATIAL 2019*

OPEN Incubator Program

Umesh Gupta - *with Chris Jones for Open SKAI*

Awards & Honors

NC State 2019 Esri Development Center Student of the Year

Jason Matney

Envisioning Research NC State Research Image Contest

2018

Anna Petrasova - *1st place, Student/Postdocs Graphics*

Vaclav Petras - *2nd place, Student/Postdocs Graphics*

2019

Umesh Gupta - *2nd place, Student/Postdocs Graphics*

NC Open Pass DataPalooza 2018

Umesh Gupta - *1st place*

Student Leadership & Service

Geospatial Graduate Student Organization

	2018–2019	2019-2020
<i>President</i>	Nick Kruskamp	Kellyn Montgomery
<i>Vice President</i>	Chanelle McArthur	Nikki Inglis
<i>Secretary</i>	Devon Gaydos	Shannon Ricci
<i>Treasurer</i>	Kellyn Montgomery	Rohith Matli
<i>Social Committee Chair</i>	Byron Ifediora	Byron Ifediora
<i>Forum Committee Chair</i>	Corey White	Corey White
<i>Distance Education Rep.</i>		Matt Conard

K-12 Teaching Activities

Megan Coffey, Garrett Millar, Kellyn Montgomery

- *GAPS (Geospatial Applications for Problem Solving)*

Nikki Inglis, Chase Nicholas, Dallas Hoffman, Erika Groh

- *Guest instructors at Alston Ridge Elementary School*

CGA IT Committee

Corey White

Duke University GIS Day 2018

Nick Kruskamp - *Speaker*

Student Teaching Assignments

Fall 2018

Blake Baines - *GIS 280*
Sabina Bastias - *GIS 510, GIS 520*
Elena Bechman - *GIS 520*
Lyndsay Heeter - *GIS 515, GIS 660*
Mary Johnson - *GIS 510*
Colleen Lippert - *GIS 550*
Clare Maher - *GIS 280*
Dominic Manz - *GIS 280*
Jason Matney - *GIS 510, GIS 535, GIS 595*
Garrett Millar - *GIS 501, GIS 582*
Kellyn Montgomery - *GIS 582*
Lana Morris - *GIS 540*
Anthony Myers - *GIS 530*
Elizabeth Robinson - *GIS 280, GIS 540*
Paul Schrum - *GIS 540*

Spring 2019

Blake Baines - *GIS 582*
Sara Barker - *GIS 530*
Elena Beckman - *GIS 520*
Jack Cummings - *GIS 205*
Christopher Franz - *GIS 510*
Mark Griffin - *GIS 512*
Lyndsay Heeter - *GIS 515, GIS 660*
Mary Johnson - *GIS 510*
Colleen Lippert - *GIS 550*
Alex Lowry - *GIS 540*

Dominic Manz - *GIS 280*
Travis Newton - *GIS 280*
Jennifer Parra - *GIS 520*
Elizabeth Robinson - *GIS 280*
Paul Schrum - *GIS 540*

Fall 2019

Sara Barker - *GIS 280, GIS 530*
Christopher Franz - *GIS 510*
Rebecca Hahn - *GIS 520*
Mary Johnson - *GIS 510*
Alli Jones - *GIS 515, GIS 660*
Colleen Lippert - *GIS 535, GIS 550*
Dominic Manz - *GIS 280*
Heather Paxson - *GIS 510*
Gardner Pierson - *GIS 520*
Will Reckling - *GIS 582*
Logan Richardson - *GIS 520*
Elizabeth Robinson - *GIS 280*
Paul Schrum - *GIS 512*
Lucian Stewart - *GIS 540*
Corey White - *GIS 710*
Shon Zimmerman - *GIS 540*

Geospatial Analytics Degree Milestones

Written Preliminary Exam Completed

Nick Kruskamp - *July 2019*

Megan Coffey - *September 2019*

Kellyn Montgomery - *October 2019*

Oral Preliminary Exam Completed, Student Advanced to Ph.D. Candidacy

Nick Kruskamp - *October 2019*

Megan Coffey - *October 2019*

Dissertation Defended

Payam Tabrizian - *October 2018*

Dissertation Title: Integrating Geospatial Computation, Virtual Reality and Tangible Interaction to Enhance Landscape Design and Research. Chairs: Perver Baran & Ross Meentemeyer

Jason Matney - *August 2019*

Dissertation Title: Emerging Computing Trends, Web GIS Tools and Forecasting Methods for Geospatial Environmental Decision Support in Service of Complex Land Management Challenges. Chairs: Stacy Nelson & Stacy Supak

Alumni Employment

Jason Matney - *GIS Data Scientist*

Dewberry; Fairfax, VA

Vaclav Petras - *Geospatial Research Software Engineer*

Center for Geospatial Analytics; Raleigh, NC

Anna Petrasova - *Geospatial Research Software Engineer*

Center for Geospatial Analytics; Raleigh, NC

Payam Tabrizian - *Design Technologist*

IDEO; Palo Alto, CA

Student Presentations

Conference Presentations

SPIE Optics + Photonics | San Diego, CA

August 19-23, 2018

Coffer, M., Schaeffer, B., Uruqhart, E., Darling, J. & Salls, W. A method for quantifying the number of U.S. lakes with cyanobacterial harmful algal blooms using satellite remote sensing

American Geophysical Union (AGU) Annual Meeting | Washington, D.C.

December 10-14, 2018

Belica, L., Petrasova, A., Caldwell, P.V., Nelson, S.A.C. Minimal data collection for maxima results, combining geospatial modeling and a heat flux approach to the thermal regimes of headwater streams in a humid, hardwood forest

Coffer, M., Schaeffer, B., Darling, J., Uruqhart, E., Salls, W. Assessing the impact of cyanobacterial harmful algal blooms on drinking water intakes across the United States

Kruskamp, N., Gray, J.M., Meentemeyer, R.K. Quantifying emerging infectious disease impacts on above ground biomass

Millar, G., Money, E.S., Bunds, K.S., Mitasova, H. Increasing underrepresented high school students' STEM career awareness and interest: an informal geospatial science program

Jeziorska, J., Montgomery, K., Mitasova, H. Microtopography and crop vigor changes assessment using time series of UAS derived data

International Association of Wildland Fire (IAWF) Human Dimensions Conference | Asheville, NC

December 11-14, 2018

Inglis, N., Shedd, J., Vukomanovic, J. Prescribed fire management and social vulnerability at the wildland-urban interface

Active Living Conference | Charleston, SC

February 17-20, 2019

Alberico, C., Marquet, O., Huang, J., Mazak, E., Hipp, J., Floyd, M. Spatial patterns of use of parks by children in low-income and ethnically diverse communities

Huang, J., Floyd, M., Marquet, O., Alberico, C., Mazak, E., Hipp, J. Neighborhood characteristics, park quality and active park use among children in low-income racial and ethnic minority communities

Marquet, O., Alberico, C., Huang, J., Mazak, E., Hipp, J., Floyd, M. How do crime rates affect park attendance? Findings from the PARC3 study in New York City low-income neighborhoods

Van Bakergem, M., Hipp, J., Park, J., Wang, X., Rider, T. Exploring how health is conceptualized among multifamily real estate developers: A multiple case study approach

NCGIS | Winston-Salem, NC

February 27-March 1, 2019

Ifediora, B., Cutts, B. Dynamic models of social vulnerability to inform disaster recovery

Montgomery, K. Canopy structural patterns for identifying yield variability in grain sorghum

Petras, V., Jones, C., Petrasova, A., Gaydos, D., Montgomery, K., Meentemeyer, R. New open source tool for plant pest and pathogen spread modeling

Petras, V., White, C. GRASS GIS: What's New and GRASS GIS: Getting Started

Petras, V., White, C. Navigating the geospatial open source software landscape

Vivek Nanda, V. Collaboration for Geolnnovation

Vivek Nanda, V. Visualizing greenspace for Wake County stakeholders: A look at a loss from 1995 to 2015

SPACE Symposium | Raleigh, NC

April 4-5, 2019

Montgomery, K. Canopy structural patterns for identifying yield variability in grain sorghum

US International Association for Landscape Ecology (US-IALE) |

Fort Collins, CO

April 7-11, 2019

Gaydos, D., Jones, C., Meentemeyer, R.K. Dynamic geospatial simulations for assessing landscape-scale control of forest disease spread in Oregon

Millar, G., Tabrizian, P., Petrasova, A., Petras, V., Harmon, B., Mitasova, H., Meentemeyer, R.K. Tangible Landscape: A Hands-on Method for Teaching Terrain Analysis

Vukomanovic, J., Inglis, N. Scenic drives and fall color viewing in Colorado impacted by changes to quaking aspen distribution due to climate change

Environmental Design Research Association | Brooklyn, NY

May 22-26, 2019

Alberico, C., Hipp, J.A., Marquet, O., Huang, J., Mazak, E., Floyd, M. Children's physical activity in playgrounds in low-income communities

American Society of Agricultural and Biological Engineers (ASABE)

Annual Meeting | Boston, MA

July 7-10, 2019

Montgomery, K. Canopy structural patterns for identifying yield variability in tobacco and grain sorghum

NC State Symposia

College of Natural Resources Graduate Research Symposium

February 2019

Megan Coffey

Umesh Gupta

Kellyn Montgomery

NC State Graduate Research Symposium

March 2019

Megan Coffey - *3rd place, Agricultural Sciences & Natural Resources*

Nick Kruskamp

Garrett Millar

Kellyn Montgomery

College of Natural Resources Multi-Lingual Research Symposium

March 2019

Umesh Gupta

Geospatial Forum

Spring 2019

Umesh Gupta

Jason Matney

Kellyn Montgomery

Faculty & Staff Achievements

Awards

2018-2019

Faculty fellow **Josh Gray** and postdoctoral scholars **Anna Petrasova** and **Vaclav Petras** were winners in the 2018 NC State Envisioning Research contest.

A Center for Geospatial Analytics team led by faculty fellow **Perver Baran**, and including research associate **Makiko Shukunobe** and Ph.D. student **Reza Amindarbari**, and a team from the City of Raleigh were honored with an Esri Special Achievement in GIS award for their collaborative, cutting-edge development of Invision Raleigh.

Postdoctoral scholar **Vaclav Petras** received funding to attend the Google Summer of Code 2018 Mentor Summit.

Associate Director of Professional Education **Eric Money** led a team including faculty fellows **Aaron Hipp** and **Perver Baran** to secure a grant from the University Global Partnership Network (UGPN) Research Collaboration Fund for a project called “Bringing environmental quality and new life to city centres” with University of São Paulo.

Teaching assistant professor **Stacy Supak** was named one of five DELTA Faculty Fellows across NC State University.

Faculty fellows **Karl Wegmann** and **Del Bohnenstiehl** won an Exploratory DELTA grant: “Exploration of a Location-Based Learning Platform for Higher Education.”

Center Associate Director of Geovisualization **Helena Mitasova** received a Lifetime Achievement Award from the Geomorphometry Society.

Faculty fellow **Natalie Nelson** was a winner of the BAE Faculty Three Minute Thesis Competition.

Postdoctoral scholar **Georgina Sanchez** received a NASA-MSU Professional Enhancement Award to attend the Annual Meeting for the US-International Association of Landscape Ecology.

Postdoctoral scholar **Chris Jones** received a Google Cloud Platform research grant for

hosting and running on the web the PoPS (Pest or Pathogen Spread) model he and his team are developing.

Faculty fellow **Emily Berglund** won an Outstanding Graduate Faculty Mentor Award at the NC State Graduate Student Research Symposium.

Faculty fellow **Gustavo Machado** was awarded the College of Veterinary Medicine's global health program's first seed grant.

Business services coordinator **Mary Hicks** was the 2019 SHRA winner of the CNR Award for Excellence in recognition for her exceptional customer service. Mary also won the CNR Pride of the Wolfpack Award for 2019.

Program associate **Rachel Kasten** graduated from the 2018-2019 Equal Opportunity Institute with special recognition.

Faculty fellow **Jelena Vukomanovic** was nominated for the 2019 Equity for Women Award.

2019-2020

Faculty fellow **Gustavo Machado** led a team to secure a grant from the University Global Partnership Network (UGPN) 8th annual Research Collaboration Fund for a project called "Optimizing control interventions for visceral leishmaniasis in multiple settings" with University of São Paulo and University of Surrey

Director **Ross Meentemeyer** was awarded a Goodnight Distinguished Professorship in Geospatial Analytics.

Faculty fellow **Perver Baran** and her Ph.D. student Saeed Ahmadi Oloonabadi were accepted into the Fall 2019 I-Corps Cohort at NC State which helps researchers transition their inventions into the commercial marketplace

Faculty fellow **Aaron Hipp** was accepted into the 2019 cohort of the Interdisciplinary Research Leaders program, supported by the Robert Wood Johnson Foundation.

Center-Affiliated Grants Begun Since Summer 2018

PI: **Stacy Nelson**; Co-I: **Laura Belica** — Evaluation of a Subcanopy Solar Radiation Model Under Real-Sky Conditions with Field Validation Measurements
Sponsor: National Science Foundation (NSF)
Award Amount (Period): \$14,001 (8-1-2018 to 1-31-2020)

PIs: **Perver Baran, Laura Tateosian** — Geo-IDEAs: Geo-Innovation, DEveloping Analytic Solutions for Wake County
Sponsor: Wake County
Award Amount (Period): \$20,000 (8-15-2018 to 10-30-2019)

PI: **Natalie Nelson** — RAPID: Coastal Consequences of Engineered Water Control Systems: The Role of Freshwater Discharges in Florida's Ongoing Harmful Algal Bloom Crises
Sponsor: National Science Foundation (NSF)
Award Amount (Period): \$121,624 (9-15-2018 to 2-29-2020)

PI: **Natalie Nelson** — Harmful Algal Blooms in the Indian River Lagoon-North
Sponsor: University of Florida (Prime—US Environmental Protection Agency (EPA))
Award Amount (Period): \$3,000 (10-1-2018 to 9-30-2019)

PI: **Natalie Nelson** — FACT: Pigs, Poultry, the Planet, and Data-Driven Problem Solving (P4)
Sponsor: USDA-National Institute of Food and Agriculture
Award Amount (Period): \$475,600 (2-15-2019 to 2-14-2024)

PI: **Natalie Nelson** — Spatiotemporal Reconstruction of Historical Swine CAFO Spread in North Carolina and Connections to Water Quality
Sponsor: NCSU Sea Grant Program
Award Amount (Period): \$7,923 (3-1-2019 to 1-31-2020)

PI: **Ross Meentemeyer** — Characterizing Hydrologic Uplift Metrics to Support Restoration Decisions in North Carolina Watersheds
Sponsor: USGS (Prime: US Dept. of Interior)
Award Amount (Period): \$70,155 (3-4-2019 to 3-3-2021)

PI: **Ross Meentemeyer** — Improving Scenarios of Future Patterns of Urbanization, Climate Adaptation, and Landscape Changes in the Southeast
Sponsor: US Geological Survey (USGS) (Prime—US Dept. of Interior (DOI))
Award Amount (Period): \$323,040 (4-19-2019 to 4-18-2022)

PI: **Eric Money** — A Summer Workshop to Develop Teacher Aptitudes for Integrating Geospatial Science and Technologies in the Classroom
Sponsor: NCSU NC Space Grant Consortium
Award Amount (Period): \$19,849 (5-1-2019 to 9-30-2019)

PI: **Robert Scheller** — Forecasting Landscape Change Across the Southern Appalachians
Sponsor: US Forest Service
Award Amount (Period): \$28,371 (5-30-2019 to 6-30-2020)

PI: **Karl Wegmann** — Characterization and Geochronology of Climatically-Triggered Landslides along the Southern Blue Ridge Escarpment of North Carolina via Surficial and Bedrock Geologic Mapping
Sponsor: US Geological Survey (USGS)
Award Amount (Period): \$17,497 (6-15-2019 to 6-14-2020)

PI: **Okan Pala** — Location Aware Approach to Creating Effective Public Outreach
Sponsor: NC Department of Transportation
Award Amount (Period): \$229,360 (7-1-2019 to 6-30-2021)

PI: **Ross Meentemeyer**; Co-PI: **Chris Jones, Helena Mitsova** — Eradication Analysis & Decision Support (eRADS)
Sponsor: Animal and Plant Health Inspection Service (APHIS) – USDA
Award Amount (Period): \$131,230 (8-1-2019 to 7-31-2020)

PI: **Natalie Nelson** — FACT: Developing Data-to-Decision Pipelines for Agroecosystem Management through High-performance Computing and Big Data Analytics
Sponsor: USDA-National Institute of Food and Agriculture
Award Amount (Period): \$500,000 (8-1-2019 to 7-31-2023)

PI: **Karl Wegmann** — Geomorphology and Geochronology of Artifact-bearing Late Quaternary Landforms Near Sweeney Pass, ABDSP (Anza-Borrego Desert State Park, California)
Sponsor: Anza-Borrego Foundation
Award Amount (Period): \$5,000 (8-1-2019 to 12-31-2019)

Center-Affiliated Publications (July 2018 – present)

- Alberico, C.D., Hipp, J.A., Reis, R.S.* (2019). Association between neighborhood income, patterns of use, and physical activity levels in fitness zones of Curitiba, Brazil. *Journal of Physical Activity and Health*
- Baran, P.K., Tabrizian, P., Zhai, Y., et. al.* (2018). An exploratory study of perceived safety in a neighborhood park using immersive virtual environments. *Urban Forestry & Urban Greening*
- Bhattachan, A., Emanuel, R.E., et al.* (2018). Evaluating the effects of land-use change and future climate change on vulnerability of coastal landscapes to saltwater intrusion. *Elementa*
- Bhattachan, A., Jurjmas, M.D., Morris, P.R., Taillie, P.J., Smart, L.S., Emanuel, R.E., Seekamp, E.L.* (2019). Linking residential saltwater intrusion risk perceptions to physical exposure of climate change impacts in rural coastal communities of North Carolina. *Natural Hazards*
- Burke, C.R., Peterson, M.N., Sawyer, D.T., Moorman, C.E., Serenari, C., Meentemeyer, R.K., DePerno, C.S.* (2018). Predicting private landowner hunting access decisions and hunter density. *Human Dimensions of Wildlife*
- Chen, B.A., Hipp, J.A., Morrison, L.* (2019). Association of number of indoor tanning salons with neighborhoods with higher concentrations of male-male partnered households. *JAMA Network Open*
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Center-affiliated student, Center-affiliated faculty or researcher

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Center-affiliated student, Center-affiliated faculty or researcher

CGA Awards

The CGA Awards were created in Fall 2019 to honor members of the Center for Geospatial Analytics community whose efforts exemplify center ideals of collaboration, inclusion, and excellence in research, teaching, and service.

Advocate Award

Given to one student and one faculty/staff member who demonstrates a commitment to equity and inclusion within the Center for Geospatial Analytics, on the NC State campus, and/or in their community.

Beacon Award

Given to one student and one faculty/staff member who shines a light on the Center for Geospatial Analytics in the wider scientific community through their research, partnerships, and/or involvement in professional organizations.

Collaboration & Innovation Award

Given to a research team who collaborates across disciplinary boundaries to address environmental and societal challenges.

Creativity in Teaching Award

Given to one student and one faculty/staff member who creates an innovative learning environment (online and/or in a classroom) that engages a diverse learners in the study of geospatial data science.

Gladys West Award

Given to a “hidden figure,” one student and one faculty/staff member who consistently serves as a role model, helps others, and exceeds expectations and who does not often receive recognition and/or does not hold a leadership position at the Center for Geospatial Analytics.

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