SORIN C. POPESCU
Professor

s-popescu@tamu.edu
https://lasers.tamu.edu/

Department of Ecology and Conservation Biology
Texas A&M University, TAMU 2258
534 John Kimbrough Blvd., WFES 334
College Station, TX 77843-2258, USA
Phone: (979) 862-2614

SUMMARY OF PROFESSIONAL ACCOMPLISHMENTS

A. Teaching program

- Overall instructor evaluation averages for 2003-2020: **4.76** (out of 5)
- Classes taught: undergraduate (FRSC/GEOG/SPSC 398 Interpretation of Aerial Photography, and ESSM 444, Remote Sensing of the Environment, and ESSM 446 Unmanned Aerial Systems for Remote Sensing) and **3** graduate (ESSM 655 Remote Sensing of the Environment, ESSM 656, Advanced Remote Sensing, and ESSM 689 Unmanned Aerial Systems for Remote Sensing)
- Chaired or co-chaired **16** graduate students to completion (7 PhD, 8 MS, 1 MNRD)
- Hosted international visiting scholars: **2 professors** from Brazil and Taiwan, and **6 international PhD students**, from Finland, Turkey, Norway, Denmark, and Spain
- Currently chairing **3 Ph.D.** students and two MS; currently member of **19** graduate committees at TAMU, **6** Postdoctoral advisees since 2009; member of **64** graduate committees at TAMU (19 current and 45 past)
- External examiner for six international Ph.D. students, from New Zealand, Denmark, Norway, Australia, and South Africa;
- 2008 and 2014 Graduate Professor of the Year, Department of Ecosystem Science and Management, Texas A&M University
- 2014 American Society for Photogrammetry & Remote Sensing (ASPRS) Outstanding Workshop Instructor Award

B. Research program

- Average funding per year directly to PI: **$250k/year** over 18 years at TAMU
- **$4,068,350** grant funds **directly** available to the PI at TAMU (**$5,591,416** career total)
- Highly cited scholarly work: average Web of Science ISI citations per publication: **63;** sum of times cited: **4,020;** h-index **25;** Google Scholar: **6,832** citations**,** h-index **33,** i10-index **57**
- **67** publications with **major author contribution** (three book chapters)
- Professionally recognized contributions to the theory and applications of lidar remote sensing (First Honorable Mention, American Society for Photogrammetry and Remote Sensing, 2005 Talbert Abrams Award for Authorship and Recording of Current and Historical Engineering and Scientific Developments in Photogrammetry
- Invited **keynote** speaker at 4 international conferences, in Brazil, United Kingdom, Japan, and Australia; invited presentation at American Geophysical Union conference (AGU 2013, 2019)
- Developed software applications for lidar remote sensing of vegetation studies

C. Service

- Editor in Chief, *Annals of Forest Research*
- Associate Editor, *Frontiers in Remote Sensing*

- Associate Editor, *Forest Science*
- Member of Editorial Board, *Sensors*
- Chair, NEON Lidar Technical Working Group
- Guest Editor, *Remote Sensing*, special issue on Lidar Remote Sensing for Ecosystem Science and Management, 2019
- Guest Editor, *Photogrammetric Engineering & Remote Sensing*, March 2011 issue
- Past-President, 2013-2015, President, 2011-2012, Vice-President 2007-2010, Mid-South Region, American Society for Photogrammetry and Remote Sensing (ASPRS)
- Member of the TAMU Faculty Senate, 2013-2016; Currently member of two departmental committees, Tenure and Promotion, and Awards Committee
- Chair of one international conference on lidar remote sensing organized at TAMU - Silvilaser; member of scientific committees of 7 international remote sensing conferences

D. Administrative

- Interim Associate Department Head for Undergraduate Programs, 2019-2020

EDUCATION

Ph.D. Dept. of Forestry, Virginia Tech, Virginia, U.S.A. (2002)

Diploma degree, Forest Engineer "Transylvania" University of Brasov, Romania (1992)

PROFESSIONAL EXPERIENCE

SEPTEMBER 2015 – PRESENT **Professor with tenure**, ESSM Department, TAMU

SEPTEMBER 2009 – AUG 2015 **Associate Professor with tenure**
Dept. of Ecosystem Science and Management, Texas A&M University

JULY 2003 – AUGUST 2009 **Assistant Professor**
Dept. of Ecosystem Science and Management, Texas A&M University

AUGUST 2002 – JUNE 2003 **Postdoctoral Research Associate**,
Dept. of Forest Resources and Environmental Conservation, Virginia Tech, USA

AUGUST 1997 – MAY 2002 **Graduate Research and Teaching Assistant**
Dept. of Forest Resources and Environmental Conservation, Virginia Tech, USA

JUNE-AUGUST 1997 **GIS Analyst**
Canadian Geomatic Solutions, Calgary, Canada

JUNE - AUGUST 1996 **Research Assistant**
Dept. of Forest Biometrics, University of Freiburg, Germany

SEPTEMBER 1992 - MAY 1997 **Assistant Lecturer**
"Transylvania" University of Brasov, Romania

HONORS AND AWARDS

- 2018 Dean's Outstanding Achievement Award for Interdisciplinary Research Team Excellence, College of Agriculture and Life Sciences, TAMU

- 2017 ESSM Excellence Award in Discovery/Innovations, ESSM, TAMU
- 2014 ASPRS (American Society for Photogrammetry and Remote Sensing) Outstanding Workshop Instructor Award, Louisville, KY, March 2014
- NASA New Investigator in Earth Sciences 2008-2014
- 2008 and 2014 Graduate Professor of the Year, Department of Ecosystem Science and Management, Texas A&M University
- First Honorable Mention, American Society for Photogrammetry and Remote Sensing (ASPRS) 2005 Talbert Abrams Award for Authorship and Recording of Current and Historical Engineering and Scientific Developments in Photogrammetry
- 3rd place Fourth Annual Geospatial Solutions Applications Contest 2003
- NASA Earth System Science Fellowship, September 1999 – 2002
- American Society for Photogrammetry and Remote Sensing (ASPRS) Graduate Student Award 2002 – LH Systems Internship Award (at Leica Geosystems, San Diego, CA)
- ASPRS – Potomac Region and North Carolina Chapter Student Scholarship 2002
- NASA Graduate Student Summer Program, June – July 1998
- European Forest Institute – summer school grants: July 1997 and June 1995

TEACHING PROGRAM

Percent budgeted time: 40%

Program statement

Objectives: empower undergraduate and graduate students to understand, think critically, and apply cutting edge spatial sciences and remote sensing to solve diverse issues in natural resources.

Teaching program over time: undergraduate (FRSC/GEOG/SPSC 398 Interpretation of Aerial Photography, and ESSM 444, Remote Sensing of the Environment, and ESSM 446 Drones for Environmental Remote Sensing) and **3** graduate (ESSM 655 Remote Sensing of the Environment, ESSM 656, Advanced Remote Sensing, and ESSM 689 Drones for Environmental Remote Sensing)

Impact/Major accomplishments: Overall instructor evaluation averages for 2003-2021: 4.76 (out of 5). Immediate impact of my teaching is proven by students' interest in the classes I teach through good enrollment, class participation, and test performance. In 2008 and 2014, I was awarded the Graduate Professor of the Year, in the Department of Ecosystem Science and Management. The impact of my graduate mentoring is proven by awards and academic employment of my former PhD students. Teaching impact in the profession is also reflected in the 2014 Outstanding Workshop Instructor award from the American Society for Photogrammetry and Remote Sensing.

E. Graduate student advising - Chair of Graduate Committee (Co-Chair*)

	Name	Degree	Enrolled	Expected graduation
1	Horia Olariu*	Ph.D.	Fall 2019	May 2023
2	Ashley Wilson	Ph.D.	Fall 2018	May 2022
3	Meng Liu	Ph.D.	Fall 2018	May 2022
4	Jiyeon Kim*	Ph.D.	Fall 2019	Dec 2021
5	James Ford	MS	Fall 2018	Dec 2021
6	Clifton Virgil	MS	Summer 2019	Dec 2021
7	Mei-Kuei Lu	Ph.D.	Fall 2021	May 2024

Graduate student advising – Alumni, Chair/co-chair* of Advisory Committees

- Graduated 7 Ph.D. students and 9 MS, one MS student withdrew for health reasons

	Name	Degree, Year of completion	Thesis/Dissertation Title	Post-graduation Position
1	Alicia Rutledge Griffin	MS 2006	Using LiDAR and normalized difference vegetation index to remotely determine LAI and percent canopy cover at varying scales	Ph.D. student, Arizona State University
2	Muge Mutlu	MS 2006	Mapping surface fuels using LiDAR and multispectral data fusion for fire	Assistant Professor,

			behavior modeling	Aksaray University, Turkey
3	Kaiguang Zhao	Ph.D. 2008	Development of an on-the-fly airborne profiling laser system and its application for real-time forest inventory	Assistant Professor, Ohio State University
4.	Wesley Marcell*	MS 2009	Systematic sampling of scanning lidar swaths	ArcGIS Analyst, BNSF Railway
5	Jared Stukey	MS 2010	Deriving a framework for estimating individual tree measurements with lidar for use in the Tambeetle southern pine beetle infestation growth model	GIS Manager, Houston oil and gas industry
6	Muge Mutlu	Ph.D. 2010	Deriving canopy fuel parameters with in-situ and remote sensing data	Assistant Professor, Aksaray University, Turkey
7	Nian-Wei Ku	MS 2011	Assessing Available Woody Plant Biomass On Rangelands With Lidar And Multispectral Remote Sensing	Ph.D. student, TAMU
8	Ryan Sheridan	MS 2011	Modeling Plot-Level Biomass and Volume Using Aerial and Terrestrial Lidar Measurements	Ph.D. student, TAMU
9	Ricky Charles Vernor	MNRD 2012	Airborne Lidar for Modeling Tree Height Changes Using Multi-temporal Datasets	Pilot, American Airlines
10	Cara Valinoti*	MS	withdrew for health reasons	
11	Wasantha Kulawardhana*	Ph.D. 2013	Quantification of Salt Marsh Carbon Stocks: Integration of Remote Sensing Data and Techniques with Field Measurements	Assistant Professor, Jackson State University, MS
12	Shruthi Srinivasan	MS 2014	Multi-temporal Terrestrial Lidar for Estimating Individual Tree Dimensions and Biomass Change	GIS Developer, Texas A&M Forest Service
13	Matt Berg*	Ph.D. 2014	Integrating historical imagery and sediment radioisotopes to shed light on long-term rangeland dynamics	Postdoctoral Researcher, TAMU
14	Eric Putman	MS 2017	Quantifying standing dead tree volume and structural loss with voxelized terrestrial lidar data	Fugro, Inc.
15	Tan Zhou	Ph.D. 2017	Advances in Waveform and Photon Counting Lidar Processing for Forest Vegetation Applications	Data Scientist, Monsanto

16	Nian-wei (Tony) Ku	Ph.D. 2018	Integration of lidar remote sensing from multiple platforms to assess vegetation biophysical parameters	Postdoctoral Researcher, TAMU
17	Lana Narine	Ph.D. 2019	Spaceborne Lidar for Estimating Forest Biophysical Parameters	Assistant Professor, Auburn University

F. Graduate student advising – Current member of Graduate Advisory Committees

	Name	Degree	Department
1	Isaac Esquivel	Ph.D.	ENTO
2	Brody Teare	Ph.D.	MEPS
3	Sophie L. Maine	Ph.D.	ATMO
4	Manuel Salgado	Ph.D.	GEOG
5	Margit Pap	Ph.D.	URSC
6	Azzah Hassan	Ph.D.	WMHS
7	Phillip Steigerwald	Ph.D.	ESSM
8	Tyler Adams	Ph.D.	MEPS
9	Rachel Innocenti	Ph.D.	ESSM
10	Nathalia Cruzato	Ph.D.	PLBR
11	Zheng Li	Ph.D.	ESSM
12	Xian Dong	M.S.	GEOG
13	John Masey	Ph.D.	WFSC
14	Bryan Simoneaux	Ph.D.	PLBR
15	Pappu Yadav	Ph.D.	BAEN
16	Shakirah Nakasagga	Ph.D.	PLBR
17	Bishwa Sapkota	Ph.D.	AGRO

Member of Advisory Committees (Alumni)

	Name	Degree, Year of completion	Department
1	Narendra Das	M.S. 2006	Biological and Agricultural Engineering
2	Greg Michalak	M.S. 2006	Ecosystem Science and Management
3	Rachel Isaacs	M.S. 2007	Geography
4	Aron Edwards	M.S. 2007	TAMU Galveston
5	Shawn Lee Locke	Ph.D. 2007	Wildlife and Fisheries Sciences
6	Debabrata Sahoo	Ph.D. 2007	Biological and Agricultural Engineering
7	Zack Vernon	M.S. 2008	Ecosystem Science and Management
8	Yi-Sz Lin	Ph.D. 2009	Urban and Regional Sciences
9	Jennifer Nicole Morris	M.S. 2009	Geography
10	Kirk Stueve	Ph.D. 2009	Geography
11	Michael Gebreslasie	Ph.D. 2009	Science and Agriculture, University of

			Kwazulu-Natal, South Africa
12	Amy Williams	Ph.D. 2010	Ecosystem Science and Management
13	Huihui Zhang	Ph.D. 2010	Biological & Agricultural Engineering
14	Marius Knut	Ph.D. 2011	Ecology and Natural Resource Management Norwegian University of Life Sciences, Norway
15	Serra Akboy	Ph.D. 2012	Architecture
16	Jace Stukey	M.S. 2012	Ecosystem Science and Management
17	Michael Marshall	M.S. 2012	Wildlife and Fisheries Sciences
18	Zhaohui Chi	Ph.D. 2012	Geography
19	Szu-Hung Chen	Ph.D. 2012	Ecosystem Science and Management
20	David C. Shoemate	M.S. 2012	Ecosystem Science and Management
21	Andrew Becker	M.S. 2012	Geology
22	John Kretzchmar	MNRD 2013	Ecosystem Science and Management
23	Marie Cline	M.S. 2013	Ecosystem Science and Management
24	Daniel Russell	M.S. 2013	Geography
25	William Brademan	M.S. 2013	Ecosystem Science and Management
26	Kathryn Clifton-Ramirez	Ph.D. 2014	Ecosystem Science and Management
27	Ceema Feizollahi	M.S. 2014	Rangeland Ecology and Management
28	Nandita Gaur	Ph.D. 2015	Biological & Agricultural Engineering
29	Ligaya Rubas	Ph.D. 2015	Ecosystem Science and Management
30	Meshal Abdulah	Ph.D. 2015	Ecosystem Science and Management
31	Xian Dong	M.S. 2015	Geography
32	Marisa T. Martinez	M.S. 2015	Wildlife and Fisheries Sciences
33	Nur Husin	Ph.D. 2014	Biological & Agricultural Engineering
34	Kendall Ball	Ph.D. 2015	Ecosystem Science and Management
36	Michael Austin	M.S. 2016	Ecosystem Science and Management
37	Melanie Colon	Ph.D. 2016	Wildlife and Fisheries Sciences
38	Arturo Delgado	M.S. 2016	Ecosystem Science and Management
39	Zachary Britten	M.S. 2016	Geography
40	Shubhechchha Thapa	M.S. 2017	Geography
41	Yang Ju	M.S. 2017	Geography
42	Meagan Fitzgerald	M.S. 2017	Ecosystem Science and Management
43	Runzi Wang	Ph.D. 2017	Urban Sciences
44	Yiran Li	M.S. 2018	Geography
45	Carl Green	M.S. 2018	Geography
46	Paul Klockow	Ph.D. 2019	Ecosystem Science and Management
47	Steven Anderson	Ph.D. 2019	Soil and Crop Sciences
48	Mahendra Bhandari	Ph.D. 2020	AGRO
49	Garrett W. Powers	M.S. 2020	WFSC

G. Undergraduate student employment/research opportunities

	Name	**Department**	**Year of**

			Employment
1	Samuel Moore	ESSM	2019
2	Tanner Perkins	ESSM	2018
3	Brendon Prehn	ESSM	2015-2017
4	Eric Putman	ESSM	2014-2015
5	Robert Feeney II	ESSM	2014-2015
6	Oscar Almaguer	ESSM	2013
7	Miguel Villarreal	ESSM	2013
8	Carlos Medina	ESSM	2012
9	Noah Ward	ESSM	2012

H. Peer review of teaching:

- Ms. Jean Layne, Program Coordinator, Center for Teaching Excellence, TAMU
  i. May 2006, FRSC 608/RENR 444 – observed classroom teaching, collected student feedback, and discussed teaching assessment with instructor
  ii. October 2006, FRSC/GEOG 398 – observed classroom teaching and organized online student survey with the Measurement and Research Services

I. Professional development activities related to teaching

- Faculty Teaching Academy, Center for Teaching Excellence, Texas A&M University, Sept 2007 – March 2008
- Best Practices of iTunes U Podcasting Workshop, Instructional Technology Services and the Center for Teaching Excellence, July 25, 2007
- A+ Advantages: Using Technology to Help Your Students and You. Workshop on Technology-Mediated Instruction, College of Sciences, January 18, 2005
- Professional Development Workshop, Dean of Faculties, TAMU: Do We Look at Teaching in the Tenure Review Process? Documenting Your Teaching for Promotion and Tenure. November 18, 2004
- WebCT Quick Start Workshop, Computing and Information Services (CIS) Training Center, Texas A&M University, July 30, 2003

J. Other Teaching/Student Service Related Activity

- Founder and current advisor for the TAMU ASPRS Student Chapter (American Society for Photogrammetry and Remote Sensing

K. Seminars and guest lectures

- Rochester Institute of Technology, invited presentation for departmental seminar, March 2021, and January 23, 2013
- GIS Day, TAMU, November 19, 2008, presentation and panel discussion
- Invited presentation – 2008, 2010 Symposium on Remote Sensing for Precision Agriculture, College Station, Texas, July, 24-26 2008, and Dec 2-9, 2010
- AGLS 101 (Modern Agricultural Systems and Renewable Natural Resources, April 2005)

- Project GRAD (2005)
- FRSC 620 – Advances and Issues in Forest Science (2007, 2006, 2005)
- GEOG 651 - Remote Sensing for Geographical Analysis (2005, 2006)
- FRSC 102 - Special Topics Introduction to Spatial Sciences (yearly, 2 guest lectures)
- Offered seminar on introductory topics in remote sensing to Medical Sciences Library faculty and staff, December 8, 2004

L. International scholars visitors

- Dr. Josicleda Galvincio, Associate Professor, Federal University of Pernambuco, Brazil, 1 year, 2013-2014
- Dr. Chinsu Lin, Professor and Dept. Head, Department of Forestry, National Chiayi University, Taiwan, summer of 2006 and 2012
- 6 PhD students:
    - Parvez Rana, School of Forest Sciences, University of Eastern Finland, 2014-2015, 6 months
    - Johannes Schumacher, Department of Forest and Landscape, University of Copenhagen, 2011-2012, 6 months
    - Marius Knut, Norwegian University of Life Sciences, Oslo, Norway, 2010, 3 months
    - Mariano Garcia, Department of Geography, University of Alcalá, Madrid, Spain, 2010, 3 months
    - Anil Tanriover and Onur Satir, Dept of Landscape Architecture, Cukurova University, Turkey, 2009, 3 months
- External examiner and member of graduate committee for 6 international PhD students:
    - Grant Pearse, University of Canterbury, New Zealand, 2017
    - Ninni Saarinen, Faculty of Agriculture and Forestry, University of Helsinki, Finland, 2016
    - Lin Cao, Department of Forest Resources Management, University of British Columbia, Canada, 2015
    - Johannes Schumacher, Department of Forest and Landscape, University of Copenhagen, Denmark
    - Hans Ole Orka, University of Life Sciences, Norway
    - Michael Gebreslasie, University of Kwazulu-Natal, South Africa
    - Ali Shamsoddini, The University of New South Wales, Australia

M. Post-doctoral advisees:

- Dr. Nian-Wei Ku, 2018-present
- Dr. Tan Zhou, 2018, now Data Scientist, Monsanto
- Dr. Lonesome Malambo, 2016-2017, now Assistant Research Scientist, TAMU ESSM
- Dr. Wasantha Ranjani Kulawardhana, 2014, now Assistant Prof., Jackson State University
- Dr. Kaiguang Zhao, now Associate Professor at Ohio State, 2009-2010
- Dr. Muge Agca (Mutlu), now Assistant Professor, Aksaray University, Turkey, 2010-2011

RESEARCH PROGRAM

Percent budgeted time: 40%

Program statement

Areas of emphasis: Technoecology, ecoinformatics, remote sensing and applications in environmental monitoring and analysis at multiple scales, forest and rangeland vegetation inventory, fuels and fire risk, and biomass and carbon assessment. More specific topics of research concentration include lidar sensors, unmanned aerial systems (UAS) and processing algorithms to remotely measure forest biophysical parameters and characterize the 3-D structure of vegetated ecosystems to better understand vegetation dynamics under environmental change.

Objectives: build a body of scholarly work in the area of remote sensing for environmental monitoring and assessment that spans the divide between theory and practice. A focal point is on pioneering new concepts and being relevant to current and future issues in natural resources and environmental change analysis.

Impact/Major accomplishments: Current member of NASA Science Team for ICESat-2, a photon counting lidar satellite mission launched in 2018. I contributed to the theory and methods of processing lidar data and currently took pioneering steps in developing Unmanned Aerial Systems (UAS) for remote sensing of vegetation resources. Innovative lidar processing algorithms received the Talbert Abrams Award, Honorable Mention, offered by the American Society of Photogrammetry and Remote Sensing (ASPRS) for authorship and recording of current and historical engineering and scientific developments in photogrammetry (2004). Scholarly work is highly cited and published in top scientific journals in remote sensing and natural resources, as evidenced below.

Publications and scholarly work

Web of Science (Thomson Reuters) ResearcherID: D-5981-2015:
http://www.researcherid.com/rid/D-5981-2015
ORCID: http://orcid.org/0000-0002-8155-8801
Google Scholar h-index **33**; i10-index **57**, citations: **6,832**.
https://scholar.google.com/citations?user=e7DrYNIAAAAJ&hl=en&oi=ao
Web of Science h-index: **25**; Sum of Times Cited: **4,020**; Average Citation per Article: **63**

Publications in peer-reviewed journals (Graduate student advisees in italics)

1. *Ku, N.-W.*; **Popescu, S**.; Eriksson, M., 2021. Regionalization of an Existing Global Forest Canopy Height Model for Forests of the Southern United States. *Remote Sensing* 2021 (*13)* 1722. https://doi.org/10.3390/rs13091722
2. Adak, A., Murray, S.C., Andersen, S.L., **Popescu, S.,** Malambo, L., C. Romay, N. de Leon. 2021. Unoccupied Aerial Systems (UAS) Discovered Overlooked Loci Capturing the Variation of Entire Growing Period in Maize. *The Plant Genome*. https://doi.org/10.1002/tpg2.20102

3. *Kim, J.*, **S.C.** Popescu, R.R. Lopez, X.B. Wu, and N.J. Silvy. 2020. Vegetation mapping of No Name Key, Florida using lidar and multispectral remote sensing. *International Journal of Remote Sensing* 41(24): 9469-9506. https://doi.org/10.1080/01431161.2020.1800125
4. Malambo**,** L., **Popescu, S.**, 2020. *PhotonLabeler*: An Inter-Disciplinary Platform for Visual Interpretation and Labeling of ICESat-2 Geolocated Photon Data. *Remote Sensing*. 12 (19), 3168. https://doi.org/10.3390/rs12193168
5. Narine, L.L., **S.C. Popescu**, and L. Malambo. 2020. Using ICESat-2 to Estimate and Map Forest Aboveground Biomass: A First Example. *Remote Sensing* 12 (11), 1824. https://doi.org/10.3390/rs12111824
6. *M. Liu*, **S. Popescu**, and L. Malambo. 2020. Feasibility of Burned Area Mapping Based on ICESat-2 Photon Counting Data. *Remote Sensing* 12(1), 24 https://doi.org/10.3390/rs12010024
7. Klockow, P.A., *E.B. Putman*, J.G. Vogel, G.W. Moore, C.B. Edgard, and **S.C. Popescu**, 2020. Allometry and structural volume change of standing dead southern pine trees using non-destructive terrestrial LiDAR. *Remote Sensing of the Environment* 241(2020) 111729. https://doi.org/10.1016/j.rse.2020.111729
8. Anderson, S.L., Murray, S.C., Malambo, L., Chang, A., **Popescu, S.,** Cope, D., Jung, J., & Thomasson, J.A. (2020). Unoccupied aerial system enabled functional modeling of maize height reveals dynamic expression of loci. Plant Direct, 4. https://doi.org/10.1002/pld3.223
9. Malambo, L., **S. Popescu**, *N.W. Ku*, W. Rooney, *T. Zhou, S. Moore*, 2019. A Deep Learning Semantic Segmentation-Based Approach for Field-Level Sorghum Panicle Counting. Remote Sensing 11(24), 2939. https://doi.org/10.3390/rs11242939
10. *Narine, L.* **Popescu, S.C.** and L. Malambo, 2019. Synergy of ICESat-2 and Landsat for Mapping Forest Aboveground Biomass with Deep Learning. *Remote Sensing* 11(12), 1503 https://doi.org/10.3390/rs11121503
11. *Zhou, T.* and **S.C. Popescu**, 2019. waveformlidar: An R Package for Waveform LiDAR Processing and Analysis. *Remote Sensing* 11(21), 2552 https://doi.org/10.3390/rs11212552
12. Tolleson, D. R. E.C. Rhodes, L. Malambo, J.P. Angerer, R.R. Redden, M.L. Treadwell, **S.C. Popescu**, 2019. Old School and High Tech: A Comparison of Methods to Quantify Ashe Juniper Biomass as Fuel or Forage. *Rangelands* 41(4) 159-168. https://doi.org/10.1016/j.rala.2019.06.001
13. *Ku, N.W.* and **S.C. Popescu**, 2019. A Comparison of Multiple Methods for Mapping Local-Scale Mesquite Tree Aboveground Biomass with Remotely Sensed Data. *Biomass and Bioenergy* 122: 270-279. https://doi.org/10.1016/j.biombioe.2019.01.045
14. *Narine, L.L.*, **S.C. Popescu**, A. Neuenschwander, *T. Zhou, S. Srinivasan*, and K. Harbeck. 2019. Estimating aboveground biomass and forest canopy cover with simulated ICESat-2 data. *Remote Sensing of Environment* 224: 1-11. https://doi.org/10.1016/j.rse.2019.01.037
15. *Narine, L.L.*, **Popescu, S.**, *Zhou, T., Srinivasan, S.*, and Harbeck, K. Mapping forest aboveground biomass with a simulated ICESat-2 vegetation canopy product and Landsat data. 2019. *Annals of Forest Research*, 62(1), 1-17, DOI: 10.15287/afr.2018.1163
16. S.L. Anderson, S.C. Murray, L. Malambo, C. Ratcliff, **S. Popescu**, D. Cope, A. Chang, J. Jung, and J.A. Thomasson. 2019. Prediction of Maize Grain Yield before Maturity Using

Improved Temporal Height Estimates of Unmanned Aerial Systems. *The Plant Phenome Journal 2(*1): 1-15. https://doi.org/10.2135/tppj2019.02.0004

17. Malambo, L., **S.C. Popescu**, D.W. Horne, A.N. Pugh, W.L. Rooney, 2019. Automated detection and measurement of individual sorghum panicles using density-based clustering of terrestrial lidar data. *ISPRS Journal of Photogrammetry and Remote Sensing* 149:1-13. https://doi.org/10.1016/j.isprsjprs.2018.12.015

18. *Zhou, T.*, **S.C. Popescu**, L. Malambo, *K. Zhao*, K. Krause, 2018. From Lidar waveforms to hyper point clouds: a novel data product to characterize vegetation structure. *Remote Sensing* 10 (1949). http://dx.doi.org/10.3390/rs10121949

19. Han, X., J.A. Thomasson, G.C. Bagnall, N.A. Pugh, D.W. Horne, W.L. Rooney, J. Jung, A. Chang, L. Malambo, **S.C. Popescu**, I.T. Gates, and D.A. Cope, 2018. Measurement and Calibration of Plant-Height from Fixed-Wing UAV Images. *Sensors* 18, (4092). http://dx.doi.org/10.3390/s18124092

20. *Putman, E.B.*, **S.C. Popescu**, 2018. Automated Estimation of Standing Dead Tree Volume Using Voxelized Terrestrial Lidar Data. *IEEE Transactions on Geoscience and Remote Sensing 56(11): 6484-6503.* 10.1109/TGRS.2018.2839088

21. **Popescu, S.C**., *T. Zhou*, R. Nelson, A. Neuenschwander, *R. Sheridan, L. Narine*, and K.M. Walsh, 2018. Photon counting LiDAR: an adaptive ground and canopy height retrieval algorithm for ICESat-2 data. *Remote Sensing of the Environment 208: 154-170. https://doi.org/10.1016/j.rse.2018.02.019*

22. *Putman, E.B.*, **S.C. Popescu**, M. Eriksson, *T. Zhou*, P. Klockow, J. Vogel, G. Moore, 2018. Detecting and Quantifying Standing Dead Tree Structural Loss with Reconstructed Tree Models Using Voxelized Terrestrial Lidar Data. *Remote Sensing of the Environment 209: 52-65*. https://doi.org/10.1016/j.rse.2018.02.028

23. Pugh, N., D.W. Horne, S. Murray, G. Carvalho, L. Malambo, J. Jung, A. Chang, M. Maeda, **S.C. Popescu**, T. Chu, M. Starek, M. J. Brewer, G. Richardson, and W.L. Rooney, 2018. Temporal Estimates of Crop Growth in Sorghum and Maize Breeding Enabled by Unmanned Aerial Systems. *The Plant Phenome Journal* 1:170006 doi:10.2135/tppj2017.08.0006

24. *Zhou, T.*, **S.C. Popescu**, A.M. Lawing, M. Eriksson, B.M. Strimbu, and P.C. Burkner, 2018. Bayesian and Classical Machine Learning Methods: A Comparison for Tree Species Classification with LiDAR Waveform Signatures. *Remote Sensing* 2018, *10*(1), 39; doi:10.3390/rs10010039

25. L. Malambo, **S.C. Popescu**, S.C. Murray, *E. Putman*, N.A. Pugh, D.W. Horne, G. Richardson, *R. Sheridan*, 3 B. Rooney, R. Avant, M. Vidrine, B. McCutchen, D. Baltensperger, M. Bishop, 2018. Multitemporal Field-based Plant Height Estimation using 3D Point Clouds Generated from Small Unmanned Aerial Systems High-resolution Imagery, *International Journal of Applied Earth Observation and Geoinformation* 64: 31-42. https://doi.org/10.1016/j.jag.2017.08.014

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57. **Popescu, S.C.** and *K. Zhao*, 2008. A voxel-based lidar method for assessing crown base height. *Remote Sensing of Environment 112(3): 767-781*.

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62. Hopkinson, C., **S.C. Popescu**, M. Flood, and R. Maher, 2007. A study on the need for LiDAR training. *Photogrammetric Engineering & Remote Sensing* 73 (5): 537-547.

63. **Popescu, S.C.**, R.H. Wynne and J.A. Scrivani, 2004. Fusion of small-footprint LiDAR and multispectral data to estimate plot-level volume and biomass in deciduous and pine forests in Virginia, U.S.A. *Forest Science* 50(4): p. 551 – 565.

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65. **Popescu, S.C.**, R.H. Wynne, and R.E. Nelson, 2003. Measuring individual tree crown diameter with lidar and assessing its influence on estimating forest volume and biomass. *Canadian Journal of Remote Sensing* 29(5): 564-577.

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67. **Popescu, S.C.**, R.H. Wynne and R.E. Nelson, 2002. Estimating plot-level tree heights with LiDAR: local filtering with a canopy-height based variable window. *Computers and Electronics in Agriculture* 37(1-3):71-95**.**

68. **Popescu, S.C.**, 1997. An introduction to the potential of GIS and DEMs for spatial analysis at landscape level. In*: Forest Scenario Modelling for Ecosystem Management at Landscape Level*. G.J. Nabuurs, T. Nuutinen, H. Bartelink and M. Korhonen (Eds): 137-146.

- **Software packages**

1. **Waveformlidar,** available on Github https://github.com/tankwin08/waveformlidar

   Described in: *Zhou, T.* and **S.C. Popescu**, 2019. waveformlidar: An R Package for Waveform LiDAR Processing and Analysis. *Remote Sensing* 11(21), 2552 https://doi.org/10.3390/rs11212552

2. **PhotonLabeler,** available on Github https://github.com/Oht0nger/PhoLabeler

   Described in: Malambo**,** L., **Popescu, S.**, 2020. *PhotonLabeler*: An Inter-Disciplinary Platform for Visual Interpretation and Labeling of ICESat-2 Geolocated Photon Data. *Remote Sensing*. 12 (19), 3168. https://doi.org/10.3390/rs12193168

- **Book Chapters**

69. Bishop, M.P., M.V. Bagavathiannan, D.A. Cope, D. Huo, S.C. Murray, J.A. Olsenholler, W.L. Rooney, J.A. Thomasson, J. Valasek, B.W. Young, A.M. Filippi, D.B. Hays, L. Malambo, **S.C. Popescu**, N. Rajan, V.P. Singh, B. McCutchen, B. Avant, and M. Vidrine, 2018. High Resolution UAS Imagery in Agricultural Research: Concepts, Issues and Research Directions. Chapter 1. *High Resolution Remote Sensing. CRC Press.*

70. **Popescu, S.C.** and M.K. Hauglin, 2014. Estimation of biomass components by airborne laser scanning. In M. Maltamo et al. (eds.), *Forestry Applications of Airborne Laser Scanning: Concepts and Case Studies*, Series: Managing Forest Ecosystems 27, Springer Science. XII, 412 p. ISBN 978-94-017-8662-1.

71. **Popescu, S.C.**, 2011. Lidar Remote Sensing (Chapter 3). In *Advances in Environmental Remote Sensing*, Ed. Qihao Weng, 610p. CRC Press, Taylor and Francis Group. ISBN 9781420091755.

- **Editor of Proceedings** (peer-reviewed and edited)

72. **Popescu S**., R. Nelson, *Zhao K.*, and Neuenschwander A. (Eds), 2009. Proceedings of Sivilaser 2009: the 9th International Conference on Lidar Applications for Assessing Forest Ecosystems. October, 2009. College Station, Texas, USA. (ISBN 978-1-61623-997-8).

- **Editor-reviewed articles**

73. Popescu, S.C. and M. Teodosiu. 2018. Annals of Forest Research: Ten Years of International Publication. Annals of Forest Research http://dx.doi.org/10.15287/afr.2018.1022

74. **Popescu, S.C.**, I.A. Biris, M. Teodosiu, O. Bouriaud, N. Olenici, and D. Mohor. 2014. Annals of Forest Research: 80 years from first publishing. Annals of Forest Research 57(1): 3-4.

75. **Popescu, S.C.**, P.J. Radtke, and R.H. Wynne, 2003. Forest measurements with airborne and ground-based laser scanning. *Geospatial Solutions*, Vol. 13, no. 8, pp. 18. (**3rd place** Fourth Annual *Geospatial Solutions* Applications Contest).

GRANTS AND CONTRACTS

At Texas A&M University

Type of Grant Federal/State/ Other	Dates	Funding Agency	Role and Participation	Title of Grant	Award amount	Amount attributable to candidate
Federal	2020-2023	NASA	PI	Icesat-2 Science Team: Lidar photons and machine learning for deriving vegetation biophysical parameters	$600,000	$550,000
Federal	2017-2021	USDA	Co-PI	USDA NIFA: Aerial and Ground Phenotyping Analytical Tool Development for Plant Breeders Using the Maize G2F project	$ 499,496	$ 127,000
Private	2019-2021	International Paper	PI	Synergistic use of multiple remote sensing platforms to map forest attributes with reduced uncertainty	$ 114,430	$ 114,430
Federal	2014-2020	NASA	PI	NASA ICESat 2 Science Definition Team: Improving Estimates of Forest Biophysical Parameters with an Integrated Multi-Scale Approach	$ 408,577	$ 408,577
Federal	2018/ 2020	USDA (NACA)	PI	Map/Geo-reference Critical Pecan and Other Carya Accessions at ARS Orchards in Somerville and Brownwood, Texas	$ 72,671	$ 72,671
Dept/ Internal	2017-2021	ESSM	PI	The Savanna Long-term Research and Education Initiative (SLTREI)	$ 241,190	$ 241,190
Federal	2014-2018	NASA	PI Co-Is: Jason Vogel and Georgiane Moore	NASA Rapid Response: Using LiDAR to develop a climate-driven model of the disintegration and decay of trees killed during a severe drought	$ 347,426	$ 115,809
Federal	2017	NSF	PI	NSF DDIG: Biomass estimation and uncertainty analysis: Integrating Bayesian modeling and small-footprint waveform LiDAR data	$ 19,213	$ 19,213
State/Internal	2017	AgriLife	PI	UAS Applications - Brazos Bottom Farm	$ 183,000	$ 183,000

State/Internal	2015	AgriLife	PI	UAS Applications - Brazos Bottom Farm	$ 107,184	$ 107,184
Federal	2012-2016	NASA	Co-I with Ross Nelson (PI)	NASA ROSES: ICESat-2 Science Definition Studies to Measure Forest Structure	$258,044	$97,200
State	2015-2016	TCEQ	PI	Updating the 12 km CAMx Domain Land Cover Dataset and High-Resolution Urban Vegetation Maps TAMU - Ecosystem Science & Management	$141,000	$141,000
Federal	2010-2014	NSF	Co-I with Swaroop Darba, Sivakumar Rathinam, MEEN TAMU	NSF IDR: Development of a monitoring system using UAVs for forest management	$424,984	$115, 675
Federal	2008-2014	NASA	PI	NASA New Investigator Program in Earth Sciences	$343,043	$343,043
Federal	2009-2014	USDA	Co-PI PI: K. Krutovsky Co-PIs: J. Gan, U. Kreuter, C. Loopstra, P. Merton, G. Moore, W. Rogers, R. Washington-Allen, M. Tjoelker, B. Wilcox, B. Wu	National Institute of Food and Agriculture, Food and Agricultural Sciences, National Needs Graduate and Postgraduate Fellowship, 2009 – 2014, A Graduate Program in Forest Resources: Developing Integrated Expertise in Forest Resource Management, Conservation, and Restoration	$234,000	$39,000
Federal	2008-2011	NASA	PI	Satellite and airborne profiling laser sensors for multiscale vegetation assessment	$82,000	$82,000
Federal	2009-2012	USDA Forest Service	PI	Lidar-assisted Forest Inventory and Analysis (FIA)	$60,000	$60,000
State	2011	TCEQ	PI	Urban Vegetation for Biogenic Emissions	$145,000	$145,000
State	2010-	TCEQ	PI	Spatial Analysis of Vegetation	$100,000	$100,000

	2011			in Eastern Texas via Hyperspectral Imagery and LiDAR		
Other/Internal	2010	TAMU	Co-I Co-Is: R. Srinivasan, R Feagin, Washington-Allen	Computer Access/Instructional Technology Fee (CA/ITF) - ESSM SSL multimedia hardware	$9,000	$1,800
State/External	2009	Texas Bioenergy Initiative	Co-I PI: J. Ansley Co-I: K. Annamalai	Brush to biogas: potential for converting rangeland woods to biogas	$150,000	$30,000
State/External	2009	Texas Bioenergy Initiative	Co-I PI: J. Ansley Co-I: H. Perotto	Biomass Availability and Feedstock Transport Logistics of Rangeland Woody Plants for Bioenergy Uses	$50,000	$25,000
State/External	2009	TCEQ	PI	Expansion of Texas Land Use/Land Cover Through Crosswalking and Lidar Parameterization of Arboreal Vegetation	$110,000	$110,000
State/External	2008	TCEQ	PI	Texas Land-use/Land-cover mapping – Phase II	$70,000	$70,000
Federal	2008	NASA	PI	Airborne lidar for Environmental Applications	$10,000	$10,000
Federal	2007-2008	National Park Service	PI Co-Is: R. Srinivasan and R.F. Billings	Mapping Southern Pine Beetle Risk	$22,000	$22,000
Federal	2004-2007	NASA	PI	Airborne LIDAR for Natural Resources Applications Award #: NNG04GM34G	$82,000	$82,000
State/External	2003-2006	Texas Forest Service	PI	Lidar Remote Sensing of Forest Fuel Loads and Fire Risk Assessment in Texas. Award #: 02-DG-11083148-050	$243,000	$243,000
State/Internal	2008	TAES PUF	Co-I Co-Is: R. Srinivasan, X.B. Wu, R.	Leica scanner with software & accessories	$39,500	$7,900

			Washington-Allen, J. Angerer, Rusty Feagin			
Other/Internal	2006	TAMU	Co-I PI: Srinivasan, R. Co-I: Feagin, R.	Computer Access/Instructional Technology Fee (CA/ITF)	$25,000	$7,500
Other/Internal	2005	TAMU	PI	Computer Access/Instructional Technology Fee (CA/ITF) ENVI/IDL 25 seats lab license	$5,010	$5,010
State/External	2005	Texas View	Co-PI Co-PI: Feagin, R.	Remote Sensing – Picture the Future	$5,000	$2,500
Federal	2003-2011	McIntire-Stennis	PI	Forest Resources and Fire Risk Assessment Using Remote Sensing Project#: TEX09011	N/A	N/A
Total at TAMU			**$5,531,416**	**$4,008,349**		
Federal	1999-2002	NASA	PI	NASA Earth System Science Fellowship	$60,000	$60,000
Total Career			**$5,591,416**	**$4,068,349**		

SERVICE, ADMINISTRATIVE AND PROFESSIONAL DEVELOPMENT

Percent budgeted time: 20%

Statement

My overarching goal is to serve my department, college, university, and the broader scientific community through a wide range of engagement activities and public obligations: provide departmental leadership in advancing undergraduate programs, outreach to community groups, service to practitioners of the profession, participation in the departmental and university service enterprise, and participation in efforts to make the academic community relevant to important state, national, and international constituencies. As a faculty member, I am conscious of the vital role faculty play in university functions, in the determination of institutional policies, for hiring colleagues, for the curriculum, for student enrollment, mentorship, and graduation.

Department

- Member, ECCB Undergraduate Program Committee, 2020-
- Member, ECCB P&T Committee, 2020-
- Interim Associate Department Head for Undergraduate Programs, 2019 – Sept 2020
- Member, Curriculum Committee in ECCB, January 2019 - 2020
- Member, ESSM Tenure and Promotion Committee, 2009 – 2019
- Member, ESSM Awards Committee, 2017
- Member, Fire Ecology Search Committee, 2016-2017
- Member, Graduate Program Committee, 2003 – 2017
- Member, Endowed Professor Awards Committee, 2016
- Chair, Faculty Excellence Fund Development Committee, March 2015
- Member, Academic Program Review Committee, 2014 – 2016
- Chair, Search Committee for Spatial Sciences tenure track position, 2013
- Member, Society of American Foresters (SAF) ESSM Forestry Degree Accreditation Committee, 2013
- Member, Clientele Engagement Committee, 2012 – 2014
- Member, Search Committee for GIS tenure track position, November 2009
- Member, Search Committee for GIS faculty position, 2004
- Departmental Booth Member, Society of American Foresters (SAF) National Convention, Fort Worth, Texas, Oct. 19-23, 2005
- Presenter, Summer Honors Invitational Program (SHIP), 2005, 2006, 2008

College

- Host, USAID Capacity Building Grant, Dr. Norah Mutekanga 2016, Visitor, Uganda
- Member, Soil Sciences Search Committee for tenure track position, 2013 and 2014
- Member of Agrilife Caucus, Faculty Senate 2013-2016
- Aggieland Saturday, Presentations and SSL booth member, 2005- 2010
- Judge, Graduate Student Poster Competition, 2006, 2010
- Mentor, Norman E. Borlaug International Science and Technology Fellows Program, September 2004; Protégé: Milic B. Curovic, University of Montenegro, Department of Forestry, Podgorica, Montenegro

University

- GEOSat Center Executive Committee member, 2015- present
- Member of the Faculty Senate, 2013 – 2016; Member of two Faculty Senate committees: Research Committee and Planning Committee
- Faculty Advisor and Founder, TAMU Student Chapter of ASPRS (American Society for Photogrammetry and Remote Sensing), 2005 – present
- Prepared MOU and served as point of contact for Texas A&M University in the TexasView Consortium of academic institutions with remote sensing curricula, 2004 – present
- 2004 - 2013 – Organized the Remote Sensing event of the Texas Science Olympiad, Texas A&M University
- Texas Science Olympiad, Coach Training Workshops for the Remote Sensing Event, 2006-2010, Texas A&M University
- Sigma Xi, The Scientific Research Society – Chair of Membership Committee (2007-2008), Member of Membership Committee (2006), Member of Awards Committee (2005)

Professional

- Editor in Chief, Annals of Forest Research, 2011 – present
- Associate Editor, Forest Science
- Associate Editor, Frontiers in Remote Sensing
- Member of Editorial Board, Sensors
- On-site, External Reviewer for The Natural Sciences and Engineering Research Council of Canada, AWARE Program, October 2014; current examiner 2016-2020

- Member of organizing committee for ASPRS (American Society for Photogrammetry & Remote Sensing) annual conference 2014, March 23-27, Louisville, Kentucky
- Promotion and Tenure Package Reviews (3): University of Washington (2019), University of Eastern Finland (2019), Colorado State University, 2014; Oregon State University, 2015, 2013; Rochester Institute of Technology, 2015, 2013
- Guest Editor, Photogrammetric Engineering & Remote Sensing, March 2011 issue
- Past-President, 2013-2014, President, 2011-2012, Vice-President 2007-2010, Mid-South Region, American Society for Photogrammetry and Remote Sensing (ASPRS)
- Member of NASA Proposal Review Panel for the Terrestrial Ecology program and New and Multi Sensor/Gulf program, March 5-8, 2012, Dulles, VA
- Member of NASA Proposal Review Panel for the Biodiversity program, December 10-12, 2008, Bethesda, MD
- NSF CAREER Proposal Review, online, 2009
- Member of NASA Proposal Review Panel for the Biodiversity program, December 10-12, 2008, Bethesda, MD
- Member of NASA Proposal Review Panel for the Terrestrial Ecology program, January 2008 (mail-in reviewer)
- Member of NASA Proposal Review Panel for the Remote Sensing Science for Carbon program, Washington, D.C., Nov 7-8, 2005
- Reviewer for the Belgian Earth Observation Program, STEREO II Program, November 2006
- Reviewer for USDA CSREES Program, December 2007
- Member on Scientific Committees: Silvilaser International Conference, Blacksburg, VA, 2017, IGARSS, 2017, 2018, Silvilaser International Conference, Vancouver, Canada, 2012; Tasmania, Australia, 2011; Freiburg, Germany, September 2010; Edinburg, UK, Sept.2008, International Symposium "Forest and Sustainable Development", Brașov, Romania, 2014.
- Chair, Silvilaser 2009 International Conference, College Station, Texas, October 14-16, 2009
- Member on Steering Committee, International Conference, Silviscan 2005: Lidar Applications in Forest Assessment and Inventory, Blacksburg, VA, Sept. 29-Oct. 1, 2005
- Co-Chair, SWAAG/Mid-South ASPRS Annual Conference, Bryan, TX, Nov 1-2, 2007
- Lidar Workshop instructor: 2004, 2006 – 2014, ASPRS Annual Conferences
- Reviews of manuscripts submitted for peer-review: Forest Science, Remote Sensing of Environment, International Journal of Remote Sensing, Journal of Forestry, Biomass & Bioenergy, Photogrammetric Engineering & Remote Sensing, BioScience, Forest

Ecology and Management, Forestry: An International Journal of Forest Research (U.K.), Canadian Journal of Forest Research, Canadian Journal of Remote Sensing, IEEE Geoscience and Remote Sensing, Natural Resources Modeling, Scandinavian Journal of Forest Research, Agronomy Journal, CSIRO, USDA Forest Service publications, Computers, Environment, and Urban Systems, Biogeosciences, Forestry (UK), International Journal of Remote Sensing

Other Professional development activities

- Faculty Search Committee Training Workshop, TAMU, Oct 22, 2008
- VEG3D & Biomass NASA Workshop, Charlottesville, VA, March 3-5, 2008

Community

- Part of organizing committee for Footprints 5k run/walk and fundraising for Oana Popescu Memorial Scholarship, 2012, 2013

PROFESSIONAL AND HONOR SOCIETIES

- American Geophysical Union (AGU) (current)
- American Society for Photogrammetry & Remote Sensing (ASPRS)
- Society of American Foresters (SAF)
- Xi Sigma Pi, The Honor Society of Forestry
- Sigma Xi, The Scientific Research Society

GRADUATE STUDENT ADVISEES HONORS AND AWARDS

Tan Zhou, Ph.D. student

- NSF DDIG Grant, 2017
- 2014 Dishman Lucas Assistantship, Department of Ecosystem Science and Management, Texas A&M University (TAMU)
- 2013 Excellence Fellowship, Texas A&M University

Ryan Sheridan, Ph.D. student

- Willie May Harris Fellowships for Outstanding Teaching Assistants, Texas A&M University
- ASPRS Paul Wolf Memorial Scholarship for Teaching Excellence (Spring 2013)

Matt Berg, Ph.D. student (co-advised)

- 2014 U.S. Senator Phil Gramm Doctoral Fellow

Kaiguang Zhao, Ph.D. student

- Outstanding PhD Student of the Year, 2008, Department of Ecosystem Science and Management, Texas A&M University
- ASPRS Leica-Geosystems Internship Award, the American Society for Photogrammetry & Remote Sensing, Aug. 2007
- Third Place, Student Paper Competition, SWAAG/Mid-South ASPRS Annual Conference, November 1-3, 2007. Bryan, Texas
- Texas A&M University Student Research Week 2006: Third Place, Interdisciplinary Research Recognition Award, International Education Week Choice Award, Lonestar Graduate Diversity Colloquium Choice Award

Muge Mutlu, Ph.D. student

- First place, Poster Competition, SWAAG/Mid-South ASPRS Annual Conference, November 1-3, 2007. Bryan, Texas
- First Place and Interdisciplinary Research Recognition Award, Texas A&M University Student Research Week 2006, Texas A&M University, College Station, Texas
- Second place, Poster Competition, Student Research Week, Mar. 25 – Apr. 1, 2005, Texas A&M University, College Station, Texas

Alicia Rutledge Griffin, M.Sc. student

- Texas Space Grant Consortium Fellowship 2006, $5,000
- American Society for Photogrammetry & Remote Sensing (ASPRS) Student Travel Grant, ASPRS Foundation. ASPRS 2006 Annual Conference, Reno, Nevada, May 1-5, 2006
- Third place, Graduate Poster. Student Research Week, Texas A&M University, College Station, Texas. Mar. 25 – Apr. 1, 2005

Jared Stukey, M.Sc. student

- Second place, Poster Competition, SWAAG/Mid-South ASPRS Annual Conference, November 1-3, 2007. Bryan, Texas

SCIENTIFIC AND PROFESSIONAL PRESENTATIONS

Type	Invited	Volunteer or submitted	Total
International	5	15	20
National	4	55	59
Regional	4		4

- **Keynote speaker – International and national conferences:**

1. **Popescu, S**. 2013. Lidar Remote Sensing at Multiple Scales: Assessing Forest Biophysical Parameters. The XVI Brazilian Remote Sensing Symposium, Foz do Iguazu, Brazil, April 13-18, 2013. **Invited participation,** with travel costs covered by organizers.
2. **Popescu, S**. 2011. Silvilaser Conference wrap-up talk. Silvilaser 2011, University of Tasmania, Australia, October 16-20, 2011.
3. **Popescu, S.**, and *R.D. Sheridan*, 2010. Bringing all lidar data together: investigations of spatially coincident terrestrial, airborne, and satellite lidar data for deriving vegetation structure metrics. The Optical Society: Optical Remote Sensing of the Environment, 7 Jun. – 8 Jun. 2010, Tucson, Arizona. **Invited participation,** with $1000 out of travel costs covered by organizers
4. **U.K. Remote Sensing & Photogrammetry Society (RSPSoc) Annual Conference**, University of Cambridge, Cambridge, U.K., September 7, 2006. Title: LiDAR tomography of vegetation: What's next? **Invited participation**, with travel costs covered by organizers.
5. **Popescu, S.C.** and *K. Zhao*, 2006. Scaling up LiDAR biomass estimates: from individual trees to local and regional scale maps. *Silvilaser 2006*. Matsuyama, Japan, November 7-10, 2006. **Invited participation,** with travel costs covered by organizers.

- **Invited speaker –national and international conferences:**

1. **Popescu, S.** 2014. Estimating forest biophysical parameters using ICESat-1 & 2 Lidar datasets. *At* ICESat-2 Vegetation Tutorial with Landsat 8, May 7th-8th, 2014, School of Natural Resources and Environment, University of Michigan, Ann Arbor, Michigan
2. **Popescu, S.**, *K. Zhao*, R. Feagin, D. Gatziolis, *R. Sheridan, S. Srinivasan, NW Ku, and W. Kulawardhana.* 2013. From grass to forest biomass: uncertainty estimates with lidar remote sensing. In Session: B069 Understanding uncertainty in remotely sensed vegetation data products, American Geophysical Union (AGU), San Francisco, December 2013.
3. **Popescu, S.C.** and M. Flood, 2004. Developing LIDAR curriculum: incorporating industry perspectives. ASPRS 2004 Annual Conference, May 23-28, 2004, Denver, Colorado, U.S.A. *Invited presentation.*
4. **Popescu, S.C.** and R.H. Wynne, 2002. Forest biomass estimation with high density multiple return LiDAR and coregistered optical data: Local filtering with a variable window size based on canopy height and forest type. Workshop on *Three-Dimensional*

Analysis of Forest Structure and Terrain Using LiDAR Technology, March 14-15, 2002, Victoria, B.C., Canada. **Invited presentation.**

- **Papers published in conference proceedings** (Graduate student advisees in italics)

1. Malambo L, **Popescu S**, *Sheridan R, Putman* E, Murray S, Richardson G (2016): "Deriving Temporal Plant Height Information for Maize Breeding", American Geophysical Union (AGU) Fall Meeting, San Francisco, California, December 12 – 16 2016.
2. Gatziolis, D. **S. Popescu**, *R. Sheridan*, and *N-W Ku*, 2011. Evaluation of terrestrial LiDAR technology for the development of local tree volume equations. Silvilaser, Germany.
3. *Griffin, A.R.*, S.C. Popescu, and *K. Zhao*, 2008. Using LiDAR and Normalized Difference Vegetation Index to Remotely Determine LAI and Percent Canopy Cover. Peer-reviewed proceedings, Silvilaser 2008, Edinburgh, UK, September 17-19, 2008.
4. *Mutlu, M.*, and **Popescu, S.C**., 2007. Using Lidar-Derived fuel Maps with FARSITE for Fire Behavior modeling. ASPRS National Conference, Tampa, Florida, May 7-11, 2007.
5. *Griffin, A.R.* and **S.C. Popescu,** 2006. Inventory from Above: Automated LIDAR Assessment of Forest Canopy Parameters. In Proceedings: *Measuring the Earth (Part II) - Latest Developments with Digital Surface Modeling and Automated Feature Extraction*. MAPPS/ASPRS 2006 Specialty Conference, San Antonio, Texas, November 6-10, 2006.
6. *Muge, M.* and **S.C. Popescu**, 2006. Sensitivity Analysis for Fire Behavior Modeling with LIDAR-Derived Surface Fuel Maps. In Proceedings: *Measuring the Earth (Part II) - Latest Developments with Digital Surface Modeling and Automated Feature Extraction*. MAPPS/ASPRS 2006 Specialty Conference, San Antonio, Texas, November 6-10, 2006.
7. Sahoo, D., P. Smith, and **S.C. Popescu**, 2006. Evaluating the effect of land use land cover change in a rapidly urbanizing semi-arid watershed on estuarine freshwater inflows. In Proceedings: *AGU Fall Meeting*, San Francisco, California, December 11–15, 2006
8. *Griffin, A.R.*, **S.C. Popescu,** and C. Stripling, 2006. Using Lidar in Determining Forest Canopy Parameters. CD-ROM Proceedings: *Prospecting for Geospatial Information Integration*. ASPRS 2006 Annual Conference, Reno, Nevada, May 1-5, 2006.
9. *Zhao, K.,* **S.C. Popescu** and R.F. Nelson, 2006. Toward the real-time estimates of biophysical parameters: an on-the-fly portable airborne profiling laser system for forest inventory. *ASPRS Annual Conference*, Reno, Nevada, May 1-5, 2006.
10. *Mutlu, M.,* and **S.C. Popescu**, 2006. Assessing forest fuel models using LiDAR remote sensing. *ASPRS Annual Conference*, Reno, Nevada, May 1-5, 2006.
11. *Mutlu, M.*, **S.C. Popescu**, and C. Stripling, 2006. Using Airborne LIDAR Data for Mapping Surface Fuels for Fire Behavior. CD-ROM Proceedings: Driving Changes in
12. Forestry. Society of American Foresters (SAF) 2005 Annual Convention, Fort Worth, Texas, Oct. 19-23, 2005.

13. *Zhao, K.,* **S.C. Popescu** and R.F. Nelson, 2005. Canopy Height Measurement with LiDAR: Initial Steps to Automated Processing with Real-time Estimates. *SAF National Convention,* Fort Worth, Texas, Oct. 19-23, 2005.
14. *Griffin, A.R.,* **S.C. Popescu,** and C. Stripling, 2005. Moving Forward with LIDAR Remote Sensing: Airborne Assessment of Forest Canopy Parameters. CD-ROM Proceedings: Society of American Foresters (SAF) 2005 Annual Convention, Fort Worth, Texas, Oct. 19-23, 2005.
15. Radtke, P., J.G. Henning, **S.C. Popescu**, and R.H. Wynne, 2004. The role of terrestrial laser scanning in assessing forest attributes. CD-ROM Proceedings: ASPRS 2004 Annual Conference, May 23-28, 2004, Denver, Colorado, U.S.A.
16. Sforza, P., R.H. Wynne, **S.C. Popescu**, and Z. Bortolot, 2004. The power of 3-D visualization and immersive virtual environments for improving lidar processing algorithms. CD-ROM Proceedings: ASPRS 2004 Annual Conference, May 23-28, 2004, Denver, Colorado, U.S.A.
17. **Popescu, S.C**. and R.H. Wynne, 2002. Seeing individual trees in the forest: estimating forest biomass and volume with small-footprint lidar. CD-ROM Proceedings: ASPRS 2002 Annual Conference, April 19-26, Washington, D.C.
18. **Popescu, S.C.** and R.H. Wynne, 2001. Estimating tree heights and stand density with high-performance lidar: initial results from a case study in the Virginia Piedmont. CD-ROM Proceedings: ASPRS 2001 Annual Conference, April 23-27, St. Louis, MO.
19. **Popescu, S.C.,** R.H. Wynne and R.E. Nelson, 2000. Estimating forest vegetation biomass using airborne lidar measurements. In Proceedings: Second International Conference on Geospatial Information in Agriculture and Forestry, 10-12 January 2000, Lake Buena Vista, Florida, USA. Vol. II: 346-353.

- **Professional presentations with abstract published in Proceedings**

International conferences (Graduate student advisees in italics)**:**

1. *Narine, L.L.*, **Popescu, S.,** Neuenschwander,A., *Zhou, T., and Srinivasan, S.*, 2018. Estimating aboveground biomass and forest canopy cover with a simulated ICEsat-2 vegetation canopy product. ForestSAT Conference, October 2 - 5, 2018, College Park, MD.
2. *Ku, N.W.* and S. Popescu. 2018. The regional scale forest aboveground biomass estimation of south central plains with the calibrated global forest canopy height map. EIS 2018, College Station, Texas, April 5-6, and ForestSAT 2018, College Park, Maryland, October 1-5.
3. Malambo L., **Popescu S**., Bartlett B, *Srinivasan S.*, Raley F., Byram T. (2018) Estimation of Pine Cone Counts using Small Unmanned Aerial System Imagery. ForestSAT Conference, October 2 - 5, 2018, College Park, MD.
4. *Narine, L.L.*, **Popescu, S.**, Neuenschwander,A., and Srinivasan, S. Estimating aboveground biomass and forest canopy cover with a simulated ICESat-2 vegetation canopy product. Silvilaser conference, October 10-12, 2017, Blacksburg, VA.

5. *Kulawardhana, R. W.,* **Popescu, S. C.**, Feagin, R. A., Matt C. Reeves & Robert A. Washington-Allen, 2012. Degradation assessment of Texas rangelands using 28 year data records of vegetation net primary productivity, precipitation and Temperature. Fourth International Conference on Geo-Information Technology for Natural Disaster Management. November 7-8, 2012, Colombo, Sri Lanka
6. *Srinivasan, S.* and **S.C. Popescu**, 2012. Analyzing changes in the forest structural parameters using multi-temp oral terrestrial lidar datasets. SilviLaser 2012: First Return. Vancouver, Canada, September 2012.
7. *Ku, N-W* and **S.C. Popescu**, 2012. Assessment of woody plant biomass with lidar and multispectral remote sensing. SilviLaser 2012: First Return. Vancouver, Canada, September 2012.
8. Gatziolis, D., **Popescu S.,** *R. D. Sheridan,* and *N. Ku*, 2010. Development of local tree volume equations from terrestrial lidar." Silvilaser, 14 Sept. – 17 Sept. 2010, Freiburg, Germany.
9. *Mutlu, M.*, and **Popescu, S.C.**, 2007. Mapping surface fuels with LIDAR and Multispectral data fusion. Conference proceedings: Turkey Society of Photogrammetry and Remote Sensing, IV. Technical Symposium, Turkey, June 5-7 2007.
10. **Popescu, S.C.** and *K. Zhao*, 2005. When every LIDAR point counts: analyzing the point cloud with a height bin approach to assess individual tree species. *Silviscan: LIDAR Applications in Forest Assessment and Inventory*, Blacksburg, VA, USA, Sept 29 – Oct 1, 2005.
11. *Zhao, K.,* **S.C. Popescu** and R.F. Nelson, 2005. *A Preliminary Investigation for Deriving On-The-Fly Profiling LiDAR Estimates of Forest Parameters", Silviscan 2005: Lidar Applications in Forest Assessment and Inventory*, Blacksburg, Virginia, USA, Sept 29 – Oct 1, 2005.
12. **Popescu, S.C.,** 2005. Developing accurate tools to estimate forest biomass: LIDAR data and processing methods. *IEA Bioenergy Task 31*, Perth, Australia, July 31 – August 5, 2005.
13. **Popescu, S.C.,** R.H. Wynne, and R.F. Nelson, 2003. Measuring individual tree crown diameter with LiDAR and assessing its influence on estimating forest volume and biomass. *ScandLaser 2003*, Umeä, Sweden, September 2-4, 2003.
14. **Popescu, S.C.** and R.H. Wynne, 2002. Forest biomass estimation with high density multiple return LiDAR and coregistered optical data: Local filtering with a variable window size based on canopy height and forest type. Workshop on *Three-Dimensional Analysis of Forest Structure and Terrain Using LiDAR Technology*, March 14-15, 2002, Victoria, B.C., Canada. **Invited presentation.**
15. **Popescu, S.C.** and R.H. Wynne, 2002. Investigating spatial autocorrelation of residuals obtained when estimating plot-level forest parameters with LiDAR: A case study in the Virginia Piedmont. *Symposium on Statistics and Information Technology in Forestry* (IUFRO S4.11 Conference), Blacksburg, Virginia, September 8-12, 2002.

National and regional conferences (Graduate student advisees in italics)**:**

1. *Narine, L.L.*, **Popescu, S.,** Malambo, L., *Zhou, T., Srinivasan, S.*, Neuenschwander, A., and Harbeck, K. Mapping forest aboveground biomass with a simulated ICEsat-2 vegetation canopy product and Landsat data. Oral presentation at the US Forest Service – NASA Applications Workshop: Satellite Data to Support Natural Resource Management, 30th April - 2nd May, 2019, Salt Lake City, Utah.
2. Malambo, L., **Popescu, S.C.**, Pugh, N. A., Horne, D, Rooney, W (2018). Application of pre-trained deep learning models for sorghum panicle characterization. American Geophysical Union (AGU) Fall Meeting, Washington DC, December 10 – 14 2018.
3. Malambo, L., **Popescu, S.C.**, Pugh, N. A., Horne, D, Rooney, W (2017). Characterizing Sorghum Panicles using 3D Point Clouds. American Geophysical Union (AGU) Fall Meeting, New Orleans, Louisiana, December 11 – 15 2017.
4. *Ku, N.W.* and **S. Popescu**. A comparison of multiple methods for deriving local-scale rangeland woody plant biomass maps with airborne lidar and multispectral data. TSSRM 2017, San Angelo, Texas, October 11-13.
5. *Ku, N.W.* and **S. Popescu**. A comparison of multiple algorithms for deriving regional-scale biomass maps with airborne lidar metrics and multispectral datasets. AGU 2016, San Francisco, California, December 12-16.
6. Malambo L, **Popescu S**, *Sheridan R, Putman E*, Murray S, Richardson G (2016): "Deriving Temporal Plant Height Information for Maize Breeding", American Geophysical Union (AGU) Fall Meeting, San Francisco, California, December 12 – 16 2016.
7. *Ku, Nian-Wei,* and **S. Popescu**, 2015. Global forest canopy height maps validation and calibration for the potential of forest biomass estimation in the southern United States. AGU 2015, San Francisco, California, December 14-18.
8. *Ku, Nian-Wei,* and **S. Popescu**, 2014. The global canopy height map validation with airborne lidar remote sensing data in the Southern United States. ASPRS 2014 Annual Conference, Louisville, Kentucky, March 23-27.
9. *Kulawardhana, R. W.,* R. A. Feagin, and **S. C**. **Popescu,** 2014. Role of elevation and relative sea level history in determining carbon distribution in *Spartina alterniflora* dominated salt marshes. Annual Conference of ASPRS, March 23-28, 2013, Louisville, Kentucky USA –*Lightning talk*
10. *Kulawardhana, R. W.,* **S. C. Popescu,** and R. A. Feagin, 2014. Fusion of LiDAR and multi-spectral data to estimate elevation, vegetation height and biomass in herbaceous salt marsh environments. International LiDAR Mapping Forum (ILMF). February 17-19, Denver, Colorado, USA – University featured presentation
11. *Ku, Nian-Wei,* and S. Popescu, Comparison of Airborne Lidar-Derived Canopy Height Models and the Global Canopy Height Map. ASPRS 2013 Annual Conference, Baltimore, Maryland, March 24-28.
12. *Kulawardhana, R. W.,* R. A. Feagin, and **S. C. Popescu,** 2013. Spatial and temporal variation in carbon deposition in a Galveston, Texas salt marsh: The role of elevation and relative sea level history. AGU Fall Meeting, Dec 9 – 13, 2013, San Francisco, California
13. *Kulawardhana, R. W.,* **S. C. Popescu,** and R. A. Feagin, 2013. Fusion of LiDAR and multi-spectral data to quantify carbon stocks in Galveston saltmarshes. Annual Conference of ASPRS, March 24-29, 2013, Baltimore, Maryland, USA
14. *Kulawardhana, R. W.,* **S. C. Popescu,** and R. A. Feagin, 2013. Characterization of salt marsh vertical structure using airborne LiDAR and spectral data. 14th Ecological

Integration Symposium of the Texas A&M University: From theory to practice - ecology and its application. March 22-23, 2013, College Station, Texas, USA

15. *Kulawardhana, R. W.,* Popescu, S. C. & Feagin, R. A. (2012). LiDAR based vegetation height models to quantify carbon stocks in Galveston saltmarshes. AGU Fall Meeting, December 3-7, 2012, San Francisco, California, USA
16. *Ku, N.W.* and **S.C. Popescu**, Comparisons of lidar and multispectral remote sensing in assessing regional scale woody plant biomass. ASPRS 2012 Annual Conference, Sacramento, California, March 19-23, 2012.
17. *Sheridan, R.D.,* **Popescu S**., and D. Gatziolis, "Modeling FIA Plot-Level Biomass and Volume Using Airbone Lidar Measurements." American Society of Photogrammetry and Remote Sensing: Imaging and Geospatial Technologies – Into The Future, 19 Mar. – 23 Mar. 2012, Sacramento California.
18. *Srinivasan, S.* and **S.C. Popescu**. Analyzing the multi-temporal changes in the forest structural parameters using terrestrial lidar data," ASPRS Annual Conference, Sacramento, California, March 2012.
19. *Ku, N.W.*, S.C. Popescu, and R. J. Ansley. Assessing Available Woody Plant Biomass on Rangelands with Terrestrial Lidar. ASPRS 2011 Annual Conference, Milwaukee, Wisconsin, May 2-5, 2011.
20. *Sheridan, R.D.*, **Popescu S.,** D. Gatziolis, and K. Zhao, "Creating a More Accurate Pseudo-waveform: Integration of Spatially Coincident Airborne and Terrestrial Lidar Data." America Society of Photogrammetry and Remote Sensing: Ride of the Geospatial Revolution, 2 May – 5 May 2011, Milwaukee, Wisconsin.
21. *Agca, M*., and **S.C. Popescu**, 2011. Deriving canopy fuel parameters using in-situ and Lidar data. ASPRS 2011 Annual Conference. Ride On The Geospatial Revolution. May 1-5, 2011. Milwaukee, Wisconsin, USA.
22. *Sheridan, R.D.*, **Popescu S.**, and D. Gatziolis, "The forest from two perspectives: integration of coincident airborne and terrestrial lidar data." American Society of Photogrammetry and Remote Sensing and the Cartographic and Geographic Information Society: Geospatial Data and Geovisualization: Environment, Security and Society, 15 Nov. – 19 Nov. 2010, Orlando Florida.
23. *Sheridan, R.D.,* **Popescu S.,** and D. Gatziolis. "Lidar Assisted Forest Inventory and Analysis Measurements." American Society of Photogrammetry and Remote Sensing: Opportunities for Emerging Geospatial Technologies, 26 Apr. – 30 Apr. 2010, San Diego, California.
24. **Popescu S.**, *Zhao K.,* Demetrious G., *Sheridan R.D., Ku N*., Harper C., *Mutlu M., and J. Stukey*, "Spatially Coincident Satellite, Airborne, and Ground-based Lidar Data: A Discussion and comparison of Forest Structure Metrics with Field Observations." American Society of Photogrammetry and Remote Sensing: Opportunities for Emerging Geospatial Technologies, 26 Apr. – 30 Apr. 2010, San Diego, California.
25. *Ku, N.W*., **S.C. Popescu**, and R. J. Ansley, 2010. Estimation of woody plant aboveground biomass for bioenergy production using ground-based lidar remote sensing. ASPRS 2010 Annual Conference, San Diego, California, April 26-30.

26. *Mutlu, M.* and **S.C. Popescu**, 2009. Deriving Canopy Bulk Density Using Airborne Lidar Data For Fire Simulation. ASPRS/MAPPS 2009 Fall Conference. Digital Mapping: From Elevation to Information. November 16-19, 2009. San Antonio, TX
27. *Mutlu, M.*, and **S.C. Popescu**, 2008. Evaluating Surface Fuel Models Using Object-, Rule-, and Pixel-Based Image Classification Techniques –ASPRS Annual Conference, Portland, May 10-14, 2008.
28. **Popescu, S.C.**, *K. Zhao*, Ross Nelson, and Chinsu Lin, 2008. Scaling up lidar-derived estimates of aboveground biomass to MODIS scales: a case study in east Texas. ASPRS National Conference, Portland, Oregon, April 28-May 2, 2008.
29. *Mutlu, M*, S.C. **Popescu,** *K. Zhao* and *J. Stukey*. Evaluating Surface Fuel Models Using Object-, Rule-, and Pixel-Based Image Classification Techniques, ASPRS 2008 Annual Conference, Portland, Oregon, April 28-May 2, 2008.
30. **Popescu, S.C.** and *K. Zhao*, 2007. Mapping aboveground forest biomass with lidar: from individual trees to local scale maps with uncertainty estimates. *ASPRS National Conference*, Tampa, Florida, May 7-11, 2007.
31. *Mutlu, M*, and **S.C. Popescu**, 2007. Using Lidar-Derived fuel Maps with FARSITE for Fire Behavior modeling. Conference proceedings: ASPRS Annual Conference-Identifying Geospatial Solutions, Tampa, FL, May 7-11, 2007.
32. **Popescu, S.C.**, 2006. LiDAR remote sensing: Adding the "Z" in Homeland Security Presentation at "Geospatial Technologies and Homeland Security" Symposium, Nov 15, 2006, Texas A&M University.
33. **Popescu, S.C.** and *K. Zhao*, 2006. When every LIDAR point counts: analyzing the point cloud with a height bin approach to assess individual tree species and canopy parameters. *ASPRS National Conference*, Reno, Nevada, May 1-6, 2006.
34. **Popescu, S.C.**, 2005. Seeing the trees made easy: a software application for detecting and measuring trees with LIDAR. *Society of American Foresters National Convention*, Fort Worth, Texas, Oct. 19-23, 2005.
35. **Popescu, S.C.**, *M. Mutlu, K. Zhao, A.R. Griffin*, and C. Stripling, 2005. Assessing forest fuel loads with lidar: a case study in east Texas. *ASPRS National Conference*, Baltimore, MD, March 7-11, 2005.
36. **Popescu, S.C.** Think Lidar: Adding the "Z" for Applications in Natural Resources. *East Texas GIS and GPS Users Group* (ETUG), Stephen F. Austin State University, Nacogdoches, Texas, USA, November 21, 2003.
37. **Popescu, S.C.**, P.J. Radtke, and R.H. Wynne, 2003. Forest measurements with scanning laser systems: A comparison of results obtained with airborne and ground-base sensors. *5th Annual Virginia Tech GIS and Remote Sensing Research Symposium*, Blacksburg, Virginia, March 28, 2003.
38. **Popescu, S.C.** and R.H. Wynne, 2002. Toward individual tree inventory: forest biomass estimation with LiDAR and coregistered optical data. *4th Annual Virginia Tech GIS and Remote Sensing Research Symposium*, Roanoke, Virginia, March 13, 2002.

39. **Popescu, S.C.** and R.H. Wynne, 2001. Adding the Z in forest remote sensing. *3rd Annual Virginia Tech GIS and Remote Sensing Research Symposium*, Roanoke, Virginia, March 14, 2001.
40. **Popescu, S.C.,** R.H. Wynne, and R.F. Nelson, 2000. Estimating forest biophysical parameters with high-performance LiDAR. *66th ASPRS Annual Conference*, Washington, D.C., 2000.

- **Posters presented at professional conferences with abstracts published in proceedings** (Graduate student advisees in italics)**:**

1. Malambo L and **Popescu S** (2020): PhotonLabeler: Collection of Ground Truth Data Through Visual Interpretation and Manual Labeling of ICESat-2 ATL03 Photons. *Poster presentation at the American Geophysical Union (AGU) Fall Virtual Meeting, Dec 1 – 17.*
2. Malambo L and **Popescu S** (2020): ICESat-2 Land Water Vegetation Elevation Product (ATL08) Product Validation in California and Oregon. Poster presentation at Ecological Society of America Virtual Annual Conference
3. *Narine L*, **Popescu S** and Malambo L (2019): Estimation of forest AGB from ICESat-2 and Landsat. Poster presentation at SilviLaser, Iguazu Falls Brazil, Oct 8–10, 2019.
4. Malambo L, **Popescu S** and *Narine, L* (2019): Preliminary Validation of the ICESat-2 Land Water Vegetation Elevation Product (ATL08). Poster presentation at SilviLaser, Iguazu Falls Brazil, Oct 8–10, 2019.
5. Malambo L and **Popescu S** (2019): Validating the ICESat-2 Land Water Vegetation Elevation Product (ATL08) with Airborne Lidar Data. Poster presentation at American Geophysical Union (AGU), San Francisco California, Dec 9–13, 2019.
6. Popescu S and **Malambo L** (2019): Filtering and Classification of ICESat-2 Geolocated Photon (ATL03) Data: A comparison to ATL08. Oral presentation at American Geophysical Union (AGU), San Francisco California, Dec 9–13, 2019.
7. Narine, L, Popescu S and Malambo L (2019): Estimation of Forest Aboveground Biomass from ICESat-2 and Landsat. A comparison to ATL08. *Poster presentation at American Geophysical Union (AGU),* San Francisco California, Dec 9–13, 2019.
8. *Narine, L.L.*, **Popescu, S.**, *Zhou, T., Srinivasan, S.*, and Harbeck, K. Estimating forest biophysical parameters with simulated ICESat-2 data. US Forest Service – NASA Applications Workshop: Satellite Data to Support Natural Resource Management, 30th April - 2nd May, 2019, Salt Lake City, Utah.
9. *Liu M*, L, **Popescu S** and Malambo L (2019): Classification of Burnt Forests Based on ICESat-2 Photon Counting Data. *Poster presentation at American Geophysical Union (AGU),* San Francisco California, Dec 9–13, 2019.
10. *Narine, L.L.*, **Popescu S.**, Neuenschwander, A., *Zhou, T. and Srinivasan, S.* Mapping forest aboveground biomass with a simulated ICESat-2 vegetation canopy product. AGU 2018 Virtual Poster Showcase, Spring 2018

11. *Ku, Nian-Wei*, and **Sorin Popescu**. The regional scale forest aboveground biomass estimation of south central plains with the calibrated global forest canopy height map. EIS 2018, College Station, Texas, April 5-6, and ForestSAT 2018, College Park, Maryland, October 1-5.
12. *Ku, Nian-Wei*, and **Sorin Popescu**. A comparison of multiple methods for deriving local-scale rangeland woody plant biomass maps with airborne lidar and multispectral data. TSSRM 2017, San Angelo, Texas, October 11-13.
13. *Ku, Nian-Wei*, and **Sorin Popescu**. A comparison of multiple algorithms for deriving regional-scale biomass maps with airborne lidar metrics and multispectral datasets. AGU 2016, San Francisco, California, December 12-16.
14. *Narine, L.L.*, **S. Popescu**, A. Neuenschwander, *R. Sheridan*, and L. Malambo. Estimating forest canopy heights and aboveground biomass with simulated ICESat-2 data. AGU Fall Meeting, Dec. 2016.
15. *Tan Zhou,* **S. Popescu**, and K. Krause. Waveform LiDAR processing: comparison of classic approaches and optimized Gold deconvolution to characterize vegetation structure and terrain elevation. AGU poster 2016.
16. *Ku, Nian-Wei*, and **Sorin Popescu**. Global forest canopy height maps validation and calibration for the potential of forest biomass estimation in the southern United States. AGU 2015, San Francisco, California, December 14-18.
17. *Ku, Nian-Wei*, and **Sorin Popescu**. Mapping regional forest aboveground biomass using lidar remote sensing with a calibrated global forest canopy height map. SilviLaser 2015, La Grande-Motte, France, September 28-30.
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