D. Sarah Stamps, PhD

Associate Professor
Virginia Tech
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1.0 EDUCATION

Purdue University, West Lafayette, IN — 2013
PhD in Geodesy and Geophysics
Dissertation: Kinematics and Dynamics of Nubia-Somalia Divergence Along the East African Rift

The University of Memphis, Memphis, TN — 2007
BS in Earth Sciences with honors thesis, magma cum laude

Additional Training

Safe Zone Training	2024
Code of Conduct Enforcement and Response Training	2023
Diversity Committee Toolkit Workshop	2023
Introduction to Machine Learning	2022
Active Bystander Training: How to Stand Up and Step In To End Harassment	2021
The Carpentries Instructor Training and Certification	2021
Captioning Fundamentals	2021
Principles of Effective Teaching Certificate Program	2020-2021
Becoming a Good Mentor	2020
Include Is a Verb: How Allies Make Inclusion a Reality	2020
Creating Effective Group Activities and Assignments	2020
Fostering an Inclusive Classroom Environment	2019
Fostering a Growth Mindset	2019

2.0 POSITIONS HELD

Associate Professor, Virginia Tech — 2021-present
Department of Geosciences

Assistant Professor, Virginia Tech — 2015-2021
Department of Geosciences

Assistant Adjunct Professor of Geology, UCLA — 2014-2016

NSF Earth Sciences Postdoctoral Fellow, MIT/UCLA — 2013-2015
Main advisor: Brad Hager, MIT
Proposal title: An Investigation of Continental Rift-Parallel Deformation

NSF Graduate Research Fellow, GRA, and GTA, Purdue University — 2008-2013
Main advisor: Eric Calais
Thesis: Kinematics and Dynamics of Nubia-Somalia Divergence Along the East African Rift

NSF Research Experiences for Undergraduates Participant, The University of Arkansas — 2005 (summer)
Advisors: Glenn Mattioli and Pamela Jansma
Project: Caribbean Plate Block Kinematics and GPS Measurements

NSF Undergraduate Research Assistant, The University of Memphis — 2004-2007
Advisor: Robert Smalley
Project 1: Kinematics of the Scotia Arc (Smalley et al., 2007)
Project 2: Developing an analog earthquake locator (Stamps and Smalley, 2006)

3.0 HONORS AND AWARDS

NSF CAREER Award	2020-present
NSF Computational Infrastructure for Geodynamics Distinguished Lecturer	2019-2020
NSF Computational Infrastructure for Geodynamics Distinguished Lecturer	2017-2018
NSF EarthCube Community Service and Leadership Award	2017
NSF Earth Sciences Postdoctoral Research Fellowship	2013
NSF Graduate Research Fellowship	2009
Outstanding Scientific Publication Award (co-author)	2008
University of Memphis Outstanding Senior Award in Earth Sciences	2007
First and Second Place Awards, University of Memphis Research Forum	2007
Excellence in Earth Sciences Phi Beta Delta Honors Award	2006
NSF Research Experiences for Undergraduates, University of Arkansas	2005
University of Memphis Regents Tuition Award	2004-2007
Leadership Award, Mainthia Technologies, NASA	2003

4.0 GRANTS AND FELLOWSHIPS

$2,488,412 raised at Virginia Tech

PI, Virginia Space Grant Consortium, "Comparison of vertical land motion solutions in the Chesapeake Bay" ($7,500, 1 year) (Student: Madeline Kronebusch) — 2024-present

PI, NSF Geothermal INTERN Program Supplement ($55,000, 6 months) (Student: Asenath Kwagalakwe) — 2023

PI, NSF Frontiers in Earth Sciences Program, "Dry Rifting in the Albertine-Rhino Graben, Uganda" ($3M, $491,754 Virginia Tech portion, 4 years) (Students: Asenath Kwagalakwe, Esha Islam, Crystal Lee, Justin Dean) Collaborative with Dr's Estella & Eliot Atekwana at UC Davis. Website link. — 2020-present

PI, NSF CAREER Program "Volcano-tectonic interactions during early phases of continental rifting" ($625,000, 5 years) (Students: Joshua Robert Jones, Ntambila Daud, Kelsey Popolizio, Rami Gorle, Abdullah Rizwan, Isabelle Paolucci, Ruben Ramirez, Saye Woodard) — 2020-present

Co-I, USGS, "Subsidence monitoring network to improve elevation datum quality for a comprehensive analysis of land motion effects on marsh migration in the Chesapeake Bay" ($170,000, 4 years) (Students: Karen Williams, Gabrielle Troia, Madeline Kronebusch, Holly Hughes, Anabelle Fry) — 2021-present

PI, Virginia Tech Coastal Hazards Seed Grant "Measuring vertical land motions in the Hampton Roads Area, Virginia: Towards investigating land subsidence processes in the Chesapeake Bay" ($5000, 1 year) — 2018-2019

PI, Virginia Tech ICTAS Program "Collecting Observations for Data Analysis and Encoding in the Geosciences (CODE-GEO)" ($10,000, 1 year) — 2017-2018

PI, NSF EarthCube Program via UC San Diego "Developing EarthCube Virtual Training Workshops" ($8000, 1 year) — 2021

PI, NSF EarthCube Program "Brokered Alignment of Long-Tail Observations (BALTO)" ($1.4M total, $572,342 Virginia Tech portion, 3 years) (Students: Emmanuel Njinju, Ryan Roane, Gabbi Troia) — 2017-2021

Co-I, NSF EarthCube Program "An Expanded Implementation of Cloud-Hosted — 2016-2021

Real-time Data Services for the Geosciences (CHORDS)" ($1.3M total, $87,815 + $24,269 supplement Virginia Tech portion, 3 years) (Students: Joshua Robert Jones, ThaoVy Nguyen)

PI, NSF GeoPRISMS Program "Quantifying plume-lithosphere interactions with GNSS geodesy, seismology, and geodynamic modeling" ($393,047 + $6000 REU) (Students: Tahiry Rajaonarison, Sean Malloy, Myles Mason, Rebecca Plosay) 2016-2021

PI, National Geographic Society "Impending volcano eruption response in northern Tanzania" ($18,500, 1 year) 2017-2018

Co-I, National Geographic Society "Geodetic and Geochemical Constraints on the Hypothesized Lwandle-Somalia Plate Boundary in Northern Madagascar" ($14,185, 1 year, student Tahiry Rajaonarison lead PI) 2016-2017

PI, National Geographic Society "An investigation of plate boundary formation in Madagascar" ($25,056, 1 year) 2014-2015

PI, NSF Earth Sciences Postdoctoral Fellowship "An investigation of continental rift-parallel deformation" ($170,000, 2 years) 2013-2015

PI, National Geographic Society "Kinematic constraints on the Lwandle-Somalia plate boundary across Madagascar from GPS geodesy – Is Madagascar breaking apart?" ($15,000, 2 years) 2011-2012

PI, NSF Graduate Research Fellowship Program "Testing rifting models in the East African Rift" ($100,000, 3 years) 2009-2013

5.0 PENDING PROPOSALS

PI, NSF Geophysics "Collaborative Research: Crust and Upper Mantle Dynamics of Southeast Asia from Seismology, and Geodesy, and Geodynamics" (Pending)

PI, USGS "Resolving the elastic response of the Virginia Coastal Plain aquifer system to managed aquifer recharge" (Pending)

PI, NSF Geophysics "Collaborative Research: Advances in African Crust and Upper Mantle Dynamics from Seismology, Geodesy, and Geodynamics" (Pending)

6.0 PEER-REVIEWED PUBLICATIONS AND BOOKS

*GTL graduate student author, **GTL researcher/postdoc authored, ***GTL undergraduate student author

ORCID 0000-0002-3531-1752
Statistics from Google Scholar (4/26/2024): Total citations: 2087, H-Index: 19, i10 index: 23
Total Peer-Reviewed Publications: 39 (8 first author, 16 second author, 16 GTL member first author)

[39] Iaffaldano, G., Martin de Blas, J., Rui, X., **Stamps, D. S**., & Bin, Z. (2024). Impact of the 2008 MW 7.9 Great Wenchuan earthquake on South China microplate motion. Scientific Reports, 14(1), 16469.

[38] *Daud, N., **Stamps, D. S**., Ji, K. H., Saria, E., Huang, M. H., & Adams, A. (2024). Detecting transient uplift at the active volcano Ol Doinyo Lengai in tanzania with the TZVOLCANO network. Geophysical Research Letters, 51(13), e2023GL108097.

[37] **Stamps, D. S.,** & Kreemer, C. (2024). Open access GNSS data for studies of the lithosphere. Geochemistry, Geophysics, Geosystems, 25(7), e2024GC011567.

[36] *Karen Williams, **D. Sarah Stamps**, Jaqueline Austermann, Scott King, Emmanuel Njinju** (**in press**) "Effects of Using the Consistent Boundary Flux Method on Dynamic Topography Estimates", *Geophysical Journal International*.

[35] Vadman, M.J., Garvue, M.M., Spotila, J.A., Bemis, S.P., **Stamps, D.S**., Owen, L.A., and Figueiredo, P.M., 2023, Evidence for a prehistoric multifault rupture along the southern Calico fault system, Eastern California Shear Zone, USA: *Geosphere*, v. 19, no. X, p. 1–27, https://doi.org/10.1130/GES02653.1.

[34] *Njinju E.A., **D.S. Stamps**, T. Rooney, E.A. Atekwana, T.A. Rajaonarison (2023) Instantaneous 3D tomography-based convection beneath the Rungwe Volcanic Province, East Africa: implications for melt generation, *Geophysical Journal International*, https://doi.org/10.1093/gji/ggad219

[33] *Rajaonarison, T. A., **Stamps, D. S.**, Naliboff, J., Nyblade, A., & *Njinju, E. A. (2023). A Geodynamic Investigation of Plume-Lithosphere Interactions Beneath the East African Rift. *Journal of Geophysical Research: Solid Earth*, https://doi.org/10.1029/2022JB025800.

[32] *Daud, N., **Stamps, D.S.**, Battaglia, M., Huang, M.H., Saria, E. and Ji, K.H. (2023) Elucidating the magma plumbing system of Ol Doinyo Lengai (Natron Rift, Tanzania) using Satellite Geodesy and numerical modeling. *Journal of Volcanology and Geothermal Research*, p.107821, https://doi.org/10.1016/j.jvolgeores.2023.107821

[31] Brune, Sascha, Jean-Arthur Olive, **D. Sarah Stamps**, Folarin Kolawole, Susanne Buiter, Roger Buck, (2023), Geodynamics of Rift Initiation and Evolution, *Nature Reviews Earth & Environment:* 1-19/

[30] ** Njinju E.A, Moorkamp M. and **Stamps D.S.** (2023), Density structure beneath the Rungwe volcanic province and surroundings, East Africa from shear-wave velocity perturbations constrained inversion of gravity data. *Frontiers in Earth Sci.* 11:1118566. doi: 10.3389/feart.2023.1118566

[29] ***Troia, G. **D.S. Stamps**, R.R. Lotspeich, J. Duda, K.J. McCoy, W. Moore, P. Hensel, R. Hippenstiel, T. McKenna, D. Andreasen, C. Geoghegan, T.P. Ulizio, ***M. Kronebusch, J. Carr, D. Walters, N. Winn (2022). GPS data from 2019 and 2020 campaigns in the Chesapeake Bay region towards vertical land motions, *Scientific Data*, https://doi.org/10.1038/s41597-022-01864-8

[28] Fadel, I., Kolawole, F., Sobh, M., **Stamps, D. S.**, Olugboji, T. M., Manzi, M., eds. (2022). *Frontiers in Earth Science*, Advances in African Earth Sciences e-book. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-83250-505-2

[27] Dye, M., **Stamps, D.S.**, ***Mason, M., & Saria, E. (2022). Toward autonomous detection of anomalous GNSS data via applied unsupervised artificial intelligence. *International Journal of Semantic Computing*, 1-17, https://doi.org/10.1142/S1793351X22400025

[26] *Njinju, E.A., **D.S. Stamps**, K. Neumuller, J. Gallagher, 2021, Lithospheric control of melt generation beneath the Rungwe Volcanic Province, East Africa, *Journal of Geophysical Research*, https://doi.org/10.1029/2020JB020728

[25] *Rajaonarison, T.A., **D.S. Stamps**, J. Naliboff, 2021, Role of Lithospheric Buoyancy Forces in Driving Deformation in East African from 3D Geodynamic Modeling, *Geophysical Research Letters*, https://doi.org/10.1029/2020GL090483.

[24] **D.S. Stamps**, C. Kreemer, R. Fernandes, *T. Rajaonarison, G. Rambolamanana, 2021, Redefining East African Rift System Kinematics, *Geology*, https://doi.org/10.1130/G47985.1.

[23] Glerum, A., S. Brune, **D.S. Stamps**, M. Strecker, Why does Victoria rotate? Continental microplate dynamics in numerical models of the East African Rift, 2020, *Nature Communications*, doi:10.1038/s41467-020-16176-x.

[22] *Rajaonarison, T.A., **D.S. Stamps**, S. Fishwick, S. Brune, A. Glerum, J. Hu, 2020, Numerical Modeling of Mantle Flow Beneath Madagascar to Constrain Upper Mantle Rheology Beneath Continental Regions, *Journal of Geophysical Research*, doi: 10.1029/2019JB018560.

[21] *Njinju A. E., E. Atekwana, **D.S. Stamps**, M.G. Abdelsalam, E.A. Atekwana, K.L. Mickus, V.N. Nyalugwe, 2019, Lithospheric Structure of the Malawi Rift: Implications for Rifting Processes in Magma Poor Rift Systems, *Tectonics*, doi:10.1029/2019TC005549.

[20] **Rui, X. and **D.S. Stamps**, 2019, Strain Accommodation in the Liangshan Mountain area, Southeastern Margin of the Tibetan Plateau, *Journal of Geophysical Research*, doi: 10.1029/2019JB017614.

[19] *Njinju A. E., F. Kolawole, E.A. Atekwana, **D.S. Stamps**, E.A. Atekwana, M.G. Abdelsalam, K.L. Mickus, A.B. Katumwehe, and V.N. Nyalugwe, 2019, Terrestrial heat flow in the Malawi Rifted Zone, East Africa: Implications for tectono-thermal inheritance in continental rift basins, *Journal of Volcanology and Geothermal Research*, doi:10.1016/j.jvolgeores.2019.07.023.

[18] *Jones, J.R., **D.S. Stamps**, C. Wauthier, J. Biggs, E. Saria, 2019, Evidence for slip on a border fault triggered by magmatic processes in an immature continental rift, *Geochemistry, Geophysics, Geosystems*. doi:10.1029/2018GC008165.

[17] **Rui, X., **D.S. Stamps**, A Geodetic Strain Rate and Tectonic Velocity Model for mainland China Based on GNSS Data Spanning 1996-2017, 2019, *Geochemistry, Geophysics, Geosystems*, doi:10.1029/2018GC007806.

[16] Rui, X., **Stamps D.S**., Huang Shengmu. GPS derived evolution of strain rate in Sichuan region [J]. *Journal of Southwest Jiaotong University*, 2018, 53(2): 344-350.

[15] **Stamps, D.S.**, E. Saria, C. Kreemer, 2018, Sub-Saharan Africa Geodetic Strain Rate Model 1.0, *Scientific Reports*, doi:10.1038/s41590-017-19097-w.

[14] F. Kolawole, E. A. Atekwana, ***S. Malloy, **D. S. Stamps**, R. Grandin, M. G. Abdelsalam1, K. Leseane and E. M. Shemang, Aeromagnetic and gravity data, and Differential Interferometric Synthetic Aperture Radar (DInSAR) analysis reveal the causative fault of the April 3, 2017 Mw 6.5 Moijabana, Botswana Earthquake, 2017, *Geophysical Research Letters*. doi: 10.1002/2017GL074620.

[13] Ji, K.H., **Stamps, D.S.,** Geirsson, H., Mashagiro, N., Syauswa, M., Kafudu, B., Subira, J. and d'Oreye, N., 2017, Deep magma accumulation at Nyamulagira volcano in 2011 detected by GNSS observations, Special Pub. on Kivu Rift, *Journal of African Earth Sciences*. doi:10.1016/j.jafrearsci.2016.06.006 corresponding author.

[12] Muirhead, J.D., S.A. Kattenhorn, H. Lee, S. Mana, B.D. Turrin, T.P. Fischer, G. Kianji, E. Dindi, and **D.S. Stamps**, 2016, Evolution of upper crustal faulting assisted by magmatic volatile release during early-stage continental rift development in the East African Rift, *Geosphere*, v. 12, doi:10.1130/GES01375.1.

[11] **Rui, X. and **D.S. Stamps**, 2016, Present-day kinematics of the eastern Tibetan Plateau and Sichuan Basin: Implications for lower crustal rheology. *Journal of Geophysical Research*, doi:10.1002/2016JB012839.

[10] Saschau, T., D. Koehn, **D.S. Stamps**, M. Lindenfield, 2015, Fault kinematics and stress fields in the Rwenzori Mountains, Uganda, *International Journal of Earth Sci.,* doi: 10.1007/s00531-015-1162-6.

[9] **Stamps, D.S.**, G. Iaffaldano, E. Calais 2015, Role of mantle flow in Nubia-Somalia divergence, *Geophysical Research Letters*, doi: 10.1002/2014GL062515.

[8] **Stamps, D.S.**, L.M. Flesch, E. Calais, A. Ghosh, 2014, Current kinematics and dynamics of Africa and the East African Rift, *Journal of Geophysical Research*, doi: 10.1002/2013JB010717.

[7] Saria, E., E. Calais, **D.S. Stamps**, D. Delvaux, C.J.H. Hartnady, 2014, Present-day kinematics of the East African Rift, *Journal of Geophysical Research*, doi: 10.1002/2013JB010901.

[6] Fernandes, R., Miranda, J. M., Delvaux, D., **D.S., Stamps**, E. Saria, 2013, Re-evaluation of the kinematics of Victoria Plate using continuous GNSS data, *Geophysical J. Int.*, doi: 10.1093/gji/ggs071.

[5] **Stamps, D.S.**, L.M. Flesch, E.Calais, 2010, Lithospheric buoyancy stresses in Africa from a thin sheet approach, *International Journal of Earth Sci*., Special Publication on Continents in Extension, 99(7), doi: 10.1007/s00531-010-0533-2.

[4] Calais, E., N. d'Oreye, J. Alberic, A. Deschamps, D. Delvaux, J. Deverchere, C. Ebinger, R.W. Ferdinand, F. Kervyn, A.S. Macheyeki, A. Oyen, J. Perror, E. Saria, B. Smets, **D.S. Stamps**, C. Wauthier, 2008, Aseismic strain accommodation by slow slip and dyking in a youthful continental rift, East Africa, *Nature*, doi:10.1038/nature07478.

[3] **Stamps, D.S**., E. Calais, E. Saria, C. Hartnady, J.-M. Nocquet, C.J. Ebinger, and R. Fernandes, 2008, A kinematic model for the East African Rift, *Geophysical Research Letters*, 35, L05304, doi:10.1029/2007GL032781.

[2] Smalley, R. Jr., I.W. Dalziel, M.G. Bevis, E. Kendrick, **D.S. Stamps**, E.C. King, F.W. Taylor, E. Lauria, A. Zakrajsek, and H. Parra, 2007, Scotia arc kinematics from GPS geodesy, *Geophysical Research Letters*, 34, L21308, doi:10.1029/2007GL031699.

[1] **Stamps, D.S.**, R. Smalley, Jr., 2006, Strings and Things for Locating Earthquakes, *Seismological Research Letters*, Vol. 77, No. 6, pp.677-683, doi:10.1785/gssrl.77.6.677.

7.0 PUBLICATIONS AND BOOKS IN REVIEW OR PREPARATION

*GTL graduate student author, **GTL researcher/postdoc authored, ***GTL undergraduate student author

*Karen Williams, **D. Sarah Stamps**, Daniele Melini, Giorgio Spada (**in review**) "Vertical Displacements and Sea-Level Changes in Eastern North America Driven by Glacial Isostatic Adjustment: an Ensemble Modeling Approach" *Journal of Geophysical Research*

Njinju, Emmanuel A., Kolawole, Folarin, **Stamps, D. Sarah**, Atekwana, Estella, Ghomsi, Franck Eitel Kemgang, and Atekwana, Eliot Anong, (**in review**) How Do En-Echelon Normal Fault Segments Coalesce? Insights from Coseismic Stress Redistribution from Large Seismogenic Segment Ruptures, Northern Malawi Rift, *Tectonophysics*

*Daud, Ntambila, **D. Sarah Stamps**, Kang-Hyeun Ji, Elifuraha Saria (**in review**) "Detecting Transient Deformation at the Active Volcano Ol Doinyo Lengai in Tanzania with the TZVOLCANO Network", *Geophysical Research Letters*

Stamps, D. Sarah and Corné Kreemer (in revisions) "Open Access GNSS Data for Lithospheric Deformation Investigations" *Geochemistry, Geophysics, Geosystems Special Edition*

*Kwagalakwe, Asenath, **D. Sarah Stamps**, Emmanuel A. Njinju**, Rob L. Evans, Estella A. Atekwana, Michael Taylor, Andrew B. Katumwehe, Peter H. Barry, Hillary Mwongyera, John Mary Kiberu, Albert Kabanda, Joan Nakajigo (in prep), "Investigating Melt Generation Beneath the Northern Western Branch of the East African Rift System Using 3D Geodynamic Modeling with ASPECT", *Tectonophysics*

X. Rui, C. A. Williams, **D. S. Stamps** (in prep) "Effects of Crustal Heterogeneity on Seismic Hazards in the Daliangshan Mountain Area, Southeastern Margin of the Tibetan Plateau" *Journal of Geophysical Research*

Keith Klepeis, **D. Sarah Stamps**, Joann Stock, Fred Vine (in prep), Global Tectonics 4th Edition, *Wiley Publishers*

8.0 TEACHING EXPERIENCE

Virginia Tech (* indicates course was team taught)	
Volcanic Processes/Advanced Volcanic Processes	F23*
Volcanism in Europe (Study abroad course)	F23*, F24
Tectonics/Advanced Tectonics (Undergraduate/Graduate, new course)	S16, Spring 2018-2024
Earth's Natural Hazards (Undergraduate, new section)	F17, F18, S/F19, S20, S/F21
Geodesy in the Earth Sciences (Undergraduate/Graduate, new course)	F18, F20, F22*, F24
Active Tectonics Seminar (Undergraduate/Graduate, new seminar)	S17*
Tectonic Geodesy (Graduate, new course)	F16
Geodynamics and ASPECT (Graduate, new course)	F15*, F17, F20
Undergraduate Research	every semester
Web-based Tools for Teaching and Research: Jupyter Notebooks and GitHub (faculty only)	F21*
Makerere University, Uganda DRIAR project training school 2022	2022*
Government of Uganda, Entebbe Workshop on Tectonic Geodesy Applications for the Seismology Department	2018
AfricaArray Annual Meetings, University of Witwatersrand, S. Africa	
International Scientific Collaboration and AfricaArray, Instructor	June 2018
Experiment Design and Implementation with GNSS, Instructor	June 2017
University of California, Los Angeles	
Geologic Maps	Winter quarter 2015
University of Antananarivo, Madagascar	
Introduction to GPS Geodesy and High Precision Observations	July 2015
GPS Training Program	June 2013
University of Bukavu, Democratic Republic of Congo	
GPS Geodesy and Applications in Geodynamics Short-Course	March 2013
Boston University	
Guest Lecturer, Introductory Geophysics	November 2013
Purdue University	
Teaching Assistant, Geosciences in the Cinema	Fall 2011
Laboratory Instructor, Physical Geology	Summer 2010, Spring 2012
Guest Lecturer, A Dynamic Earth	October 2010, 2012
Center for Earthquake Research and Information	
Student Teacher, Outreach Activities	Spring 2007, Fall 2007
The University of Memphis	
Instructor, Environmental Geology Laboratory	Spring 2005

9.0 CURRENT GEODESY AND TECTONOPHYSICS LABORATORY MEMBERS

Undergraduate Students

Madeline Kronebusch (Geosciences, 2021 – present)
Ruben Ramirez (Geosciences, Virginia Tech, 2022 – present)
Justin Dean (CMDA, Virginia Tech, 2023 – present)
Deja Celestine (USGS, 2021-2023; 2024 – present)
Jasmine Floyd (Geosciences, Virginia Tech, 2023 – present)
Joseph Randel (Geosciences, Virginia Tech, 2024 – present)
Bella Chuchro (Geosciences, Virginia Tech, 2024 – present)

Graduate Students

Karen Williams (PhD Student, NSF DRRM Fellow, Virginia Tech, 2020 – present)
Asenath Kwagalakwe (PhD Student, Virginia Tech, 2021 – present)
Ntambila "Daud" Masungulwa (PhD Student, Virginia Tech, 2021 – present)

Elly Ngailo (PhD Student, University of Witwatersrand, 2023 – present, co-advisor)

Software Engineer / Data Science Collaborators

Mike Dye (2021 – present)

10.0 FORMER GEODESY AND TECTONOPHYSICS LABORATORY MEMBERS

Postdoctoral Associates

Dr. Emmanuel Njinju (Dec. 2020 – Jan. 2023), tenure-track assistant professor at Baylor University

Graduate Students

Jane Wambui (Msc, 2022, University of Nairobi, co-advisor), currently seeking a PhD program
Joshua Robert Jones (PhD, 2021, MAOP Fellow, Virginia Tech, now a geodesist at the US National Geodetic Survey)
Emmanuel Njinju (PhD, 2020, Virginia Tech, tenure-track assistant professor at Baylor University)
Tahiry Rajaonarison (PhD, 2020, Virginia Tech, now a System/HPC Admin. at New Mexico Tech)
Jessica Schobelock (MSc, 2018, Virginia Tech, now a Senior Software Engineer at Capitol One)
Herimitsinjo Nia (MSc co-advisor, 2015, University of Antananarivo, Madagascar)
Tahiry Rajaonarison (MSc, co-advisor, 2013, University of Antananarivo, Madagascar)

Research Associates

Rui Xu, Associate Researcher Visiting Scholar, 2017-2018, Sichuan Earthquake Agency, China
John Wenskovitch, Virginia Tech, 2020 – 2022

Undergraduate Students

Saye Woodard (Geosciences, Virginia Tech, 2023 – August 2024)
Brianna Chando (Humanities, Virginia Tech, Jan 2024 – May 2024)
Anabelle Fry (Geosciences, Virginia Tech, 2022 – 2023)
Holly Hughes (Geosciences, Virginia Tech, 2022 – 2023)
Isabella Paolucci (Geosciences, Virginia Tech, 2022 – 2023)
Esha Islam (Computational Modeling and Data Analytics, Virginia Tech, 2021 – 2023)
Crystal Lee (Computational Modeling and Data Analytics, Virginia Tech, 2021 – 2022)
Gabrielle Troia (Geosciences, Virginia Tech, 2019 - 2022)
Rufus Hinton (Engineering, Virginia Tech, 2019 - 2022)
Kelsey Popolizio (Geosciences, Virginia Tech, 2021 – 2022)
Abdullah Rizwan (Computational Modeling and Data Analytics, Virginia Tech, 2021 – 2022)
Rami Gorle (Computational Modeling and Data Analytics, Virginia Tech, 2021 – 2022)
Liam O'Hanlon (Sociology and Criminology, Virginia Tech, 2021 – 2022)
Myles Mason (Computational Modeling and Data Analytics, Virginia Tech, Sept. 2019 – Aug. 2021)
Rebecca Plosay (Geosciences, Virginia Tech, Oct 2019 – May 2020)
Ryan Roane (Physics, Virginia Tech, January 2018 – July 2020)
Roberto Gorjon-Andujar, (BS Geosciences, Virginia Tech, August 2018 – May 2020)
Israel Mamo (Computational Modeling and Data Analytics, Virginia Tech, May 2019 – June 2019)
ThaoVy Nguyen (Mathematics, Virginia Tech, April 2017 – June 2019)
Sarah Morgan, (Mathematics, Virginia Tech, January 2018 – December 2018)
Sean Malloy (Physics, Virginia Tech, January 2017 – May 2018, now Field Engineer at UNAVCO)
Codi Wiersma, (Geosciences, Virginia Tech, August 2016 – May 2017)
Jared Guzman (Physics, Virginia Tech, October 2017 – December 2017)
Greg Jesmok (Geology, UCLA, 2016)
Raul Carrillo (Geology, UCLA, 2016)

11.0 OUTREACH

Public presentations

Ardhi University, Tanzania	2024
Makerere University, Uganda	2022
Virginia Tech Department of Geosciences Public Lecture	2018
Ardhi University, Tanzania	2016
Presentation to Engaresero Village, Tanzania on Volcanic Hazards and the new TZVOLCANO GNSS Network	2016

K-12 presentations and activities

Virginia Tech College of Science Data Science Camp	2023, 2024
Virginia Tech Hokie for a Day	2022, 2023, 2024
Virginia Tech College of Science Summer Camps	2022, 2023, 2024
Virginia Tech Black College Institute Geosciences representative	‘20, ‘21, ‘22, ‘23, ‘24
Virginia Tech Summer Uncamp “Ask an Expert”	2020
Editor, contributor, and featured explorer for National Geographic Kids Book “Absolute Expert: Rocks and Minerals” by Ruth Strother	2018 - 2019
National Geographic “Earth and Space Science” by Mark Hendrix High School Textbook featurette	2019
Contributor to National Geographic Kids “Solve This!” Children’s Book	2016
Sishi High School, China (200+ students)	2015
Chengdu No. 7 High School, China (300+ students)	2015
Sumbawanga Secondary School, Tanzania (200+ students)	2014
2 High Schools in Madagascar (100+ students)	2014
Soroto Secondary School, Tanzania (200+ students)	2010
Olito Secondary School, Uganda (200+ students)	2010
Trinity High School, Haiti (60+ students)	2010
S&H Secondary School, Haiti (50+ students)	2010
Ikizu Secondary School, Tanzania (150+ students)	2008

Media

Researchers forge more open access data for studies of the Earth's lithosphere	2024
Mushroom-shaped superplume of scorching hot rock may be splitting Africa in 2	2023
Study explains unusual deformation in Earth’s largest continental rift	2023
YouTube Video on Africa—Tectonic Setting and Historic Earthquakes IRIS, Scientific consultant	2022
DRIAR Project Field Training School – 11th-22nd July 2022 Makerere University, Uganda blog post	2022
Measuring volcanic interactions using real-time data on Jetstream NSF XSEDE Jetstream Science Focus Article	2021
Seismological Society of America At-Work: D. Sarah Stamps	2020
D. Sarah Stamps receives $625,000 NSF CAREER grant to study role of volcanism in continental rifting, Virginia Tech College of Science News	2020
New study: East African Rift System is slowly breaking away, with Madagascar splitting into pieces, Virginia Tech College of Science News	2020
Geosciences’ D. Sarah Stamps rocks science in National Geographic Kids book, Virginia Tech College of Science News	2019
UNAVCO Highlight: CHORDS Provides Next Generation Infrastructure for Real-time Geoscience Data Services,	2019
Spring Virginia Tech Science Magazine for CODE-GEO	2018
Invited AGU Policy Twitter featured Tweet	2018
National Geographic Society media interview	2017

on "Mountain of God" Volcano Preparing to Erupt
Geoscience's D. Sarah Stamps to spearhead $1.4 million NSF grant to build key cyberinfrastructure project, Virginia Tech College of Science News 2017
Geosciences team to place GPS sensors around Tanzanian volcano in effort to predict eruptions, Virginia Tech College of Science News 2016
National Geographic Society, Interview for Women in Science project 2016
Interview for Discovery Magazine on the East African Rift System 2016
UNAVCO Highlight: Rifting in Eastern Africa: Geodetic data deciphers spreading forces 2014
Interview for Haitian television on 2010 earthquake, Haiti 2010
Interview for Haitian radio network on 2010 earthquake, Haiti 2010
UNAVCO Highlight: Plate tectonics in the East African Rift 2008

12.0 LEADERSHIP AND SERVICE

National/International

NSF CIG Workshop organizing committee 2024-present
NSF CIG Education Working Group 2023-present
Carpentries Code of Conduct Committee, Chair 2023-present
Carpentries Code of Conduct Committee Member 2021-present
NSF UNAVCO/EarthScope Virginia Tech Institutional member representative 2015-present
SAGE/GAGE Science Workshop organizing committee 2023-2024
NSF EarthCube Early Career Travel Grant Proposal Leader 2021-2022
Guest Associate Editor in Solid Earth Geophysics, Frontiers 2021-2022
Special Topics Editor, Advances in African Earth Sciences, Frontiers 2021-2022
NSF EarthCube Workshop Template Materials Proposal Leader 2020
Co-Leader of the Early Career Investigator Community Workshop to Develop a Vision for the Future NSF Geophysical Facility 2020
AGU Committee Chair, Africa Award for Research Excellence in Earth/Ocean Sciences 2020-2022
AGU Committee member, Africa Award for Research Excellence Research Excellence in Earth and Ocean Sciences 2018-2020
NSF EarthCube Science and Engagement Team Co-Chair (elected) 2020-2022
NSF EarthCube Leadership Council (elected) 2017-2018
NSF EarthCube Science Committee (now Science and Engagement Team) 2014-2022
NSF EarthCube P418-GUI Advisory Team 2018
NSF EarthCube Registry Priority Action Team 2017
NSF EarthCube 2017 All-Hands Meeting Organizing Committee 2017
NSF EarthCube 2017 All-Hands Meeting Emcee 2017
NSF EarthCube Architecture and Implementation Plan Tiger Team Member 2016
NSF UNAVCO Education & Community Engagement Committee Member 2009-2012
NSF UNAVCO Education & Community Engagement Committee Member 2015-2017
AGU Geodesy Executive Committee Member 2008-2010
AGU Fall Meeting Session, Co-Chair or Chair 2014, 2016-2023
Review Panel Member for NASA's Earth & Surface Interiors 2016, 2021, 2023
Review Panel Member for NSF EAR Postdoctoral Fellowship 2021, 2022, 2023
External Grant Reviewer (Multiple years for the programs NSF Tectonics, GeoPRISMS, Geophysics, EarthCube, UK Early Career, NASA postdoctoral program)
Reviewer for journals (Numerous reviews for journals such as Tectonics, Science Advances, Geophysical Journal International, Journal of Geophysical Research, Tectonophysics, Earth and Planetary Science Letters, Geophysical Research Letters, Physics of

the Earth and Planetary Interiors, Reviews of Geophysics, etc.)

Virginia Tech

Virginia Tech IT Systems and Services Committee	2021-present
Virginia Tech IT Transformation Steering Committee	2022-2023
Virginia Tech Women in Data Science Blacksburg Event organizer	2022, 2023
Virginia Tech Department of Geosciences Alumni Event	2019
Virginia Tech Science Week/Virginia Tech GeoFair	2019
Virginia Tech Hokie Village education outreach	2019
Virginia Tech ICAT Day	2017, 2018
Spring Break Camp: Collecting Observations and Data Analysis for Encoding in the Geosciences	2018, 2021, 2022
Virginia Tech Science Week/Virginia Tech GeoFair	2016

13.0 DIVERSITY, EQUITY, AND INCLUSION ACTIVITIES

Virginia Tech College of Science Diversity & Inclusion Committee Chair	2022-present
International Association for Geoscience Diversity Member	2019-present
Virginia Tech Geosciences Inclusion, Diversity, Equity, Inclusion, and Accessibility (IDEA) Committee Member	2018-present
Virginia Tech Geosciences URGE Pod Leader	2020-2023
Developed CODE-GEO program for underrepresented students in STEM (funded by NSF CAREER grant for 2021-2025)	2018, 2021, 2022, 2023
Virginia Tech College of Science Diversity & Inclusion Committee Member	2021-2022
NSF EarthCube Diversity, Equity, and Inclusion Working Group Member	2020-2021
Virginia Tech HHMI Inclusive Excellence Faculty Scholar	2019-2022
Virginia Tech Black College Institute Department Representative	2019, 2020, 2021
Supported Fall GNSS measurements with HBCU Hampton University	2020, 2021
Spring Break GNSS measurements with HBCU Hampton University	2019
Virginia Tech Black Students in STEM booth organization	2019
Black Students in STEM hike organizer and participant	2019
Virginia Tech Advancing Diversity Workshop	2018, 2019, 2020
Virginia Tech HBCU/HSI Institute Outreach	2018, 2019, 2020

14.0 INVITED PANEL PARTICIPANT

Women in Data Science Blacksburg Event Career Panelist	2022, 2023
EarthCube Program Panelist	2020
International Data Week Panelist	2016

15.0 ORAL PRESENTATIONS

University of Missouri, invited seminar speaker	Mar 2024
Southern East African Rift Workshop, speaker	July 2023
GAGE/SAGE Community Science Workshop, invited plenary	Mar 2023
University of Colorado, Boulder	Mar 2023
American Geophysical Union Fall meeting, invited talk	Dec 2022
European Geosciences Union	May 2022
CSDMS Keynote	May 2022
American Geophysical Union Fall meeting, oral presentation	Dec 2021
AfricaArray keynote presentation, virtual	Dec 2021
AIKE keynote presentation, virtual	Dec 2021
Stony Brook University, virtual, YouTube	Oct 2021
University of Alaska, virtual, YouTube	Sept 2021

University of Maryland, in-person	Sept 2021
German Research Center for Geosciences, virtual, YouTube	Feb 2021
Virginia Tech, Department of Geosciences, virtual	Feb 2021
American Geophysical Union, invited, virtual	Dec 2020
University of California, Los Angeles, virtual	Apr 2020
Vertical Land Motions in the Chesapeake Bay Workshop, Hampton, VA	Feb 2020
University of New Mexico, Albuquerque, NM	Feb 2020
Michigan State University as CIG Distinguished Lecturer, East Lansing, MI	Nov 2019
Grand Valley State University as CIG Distinguished Lecturer, Allendale, MI	Nov 2019
The University of Memphis, Memphis, TN	April 2019
Penn State University, State College, PA	March 2019
University of Delaware, Newark, DE	Nov 2018
International Conference on the East African Rift System, Tanzania	Oct 2018
Appalachian State University, Boone, NC	Sept 2018
University of Witwatersrand, AfricaArray Annual Meeting, South Africa	June 2018
EarthCube All-Hands Meeting, Denver, CO	June 2018
Hampton University as NSF CIG Distinguished Lecturer, Hampton, VA	Apr 2018
American Geophysical Union Fall Meeting, San Francisco, CA	Dec 2017
University of Witwatersrand, AfricaArray Annual Meeting, South Africa	July 2017
University of Kentucky, Holbrook Lecture, Lexington, KY	April 2017
University of Michigan, The Smith Lecture, Ann Arbor, MI	January 2017
Ardhi University, Tanzania, Departmental Special Seminar	June 2016
Princeton University, Princeton, NJ	Apr 2016
UNAVCO Science Workshop, Boulder, CO	Mar 2016
Office of Foreign Disaster Assistance, USAID, Washington DC	Mar 2016
Volcano Disaster Assistance Program, USGS, Reston, VA	Mar 2016
Global Volcanism Program, Smithsonian Institute, Washington DC	Mar 2016
National Geographic Headquarters, Washington, D.C.	Feb 2016
American Geophysical Union Fall Meeting, San Francisco, CA	Dec 2015
Virginia Tech, Blacksburg, VA, Departmental Colloquium	Mar 2015
Harvard University, Cambridge, MA	Jan 2014
University of California, Los Angeles, CA	Dec 2013
Massachusetts Institute of Technology, Cambridge, MA	Nov 2013
Active Volcanism and Continental Rifting Conference, Rwanda	Nov 2013
NSF GeoPRISMS East African Rift Planning Workshop, New Jersey	Oct 2012
Queen Elizabeth National Park 2012 Research Symposium, Uganda	June 2012
University of Memphis – Memphis, TN	Nov 2011
University of Antananarivo, Madagascar	Aug 2010
IGCP 565 Workshop on separating hydrologic and tectonic signals in geodetic data. Reno, NV	Oct 2010

16.0 SKILLS

Language: English, Swahili (professional)

Computer: GAMIT-GLOBK GNSS/GPS processing software maintained at MIT, HECTOR, Generic Mapping Tools, Matlab, TDEFNODE, LaTeX, SHELLS, AWK, vi, USGS Coulomb 3, sparse codes in Fortran (Holt and Haines, 1993; Flesch et al., 2001; Stamps et al., 2010, 2014, 2018, Rui and Stamps, 2019), Visit, Paraview, Git, CHORDS, Grafana, Jupyter Notebook, GitHub community code development and contributions ASPECT, USGS dMODELS, PyLith, SELEN4.0

Teaching: Certificate in Effective Teaching, Certified Carpentries Instructor, HHMI Inclusive Excellence Faculty Scholar

17.0 PROFESSIONAL AFFILIATIONS/MEMBERSHIPS

- American Geophysical Union
- European Geosciences Union
- Geological Society of America
- Seismological Society of America
- American Association for the Advancement of Science
- International Association for Geoscience Diversity
- Association for Women Geoscientists

18.0 COLLABORATORS AND OTHER AFFILIATIONS

International Collaborators: Giorgio Spada (Universita` di Bologna), Daniele Melini (Istituto Nazionale di Geofisica e Vulcanologia), Max Moorkamp (University of Leicester, UK), Kang-Hyeun Ji (Korea Institute for Geosciences and Mineral Resources), Xu Rui (Sichuan Earthquake Agency), Elifuraha Saria (Ardhi University, Tanzania), Fred Tugume (Geological Survey and Mines Department, Ministry of Energy and Mineral Development of Uganda), Gladys Kianji (University of Nairobi), Stewart Fishwick (University of Leicester), Sascha Brune (GFZ), Jean Mary Kiberu (Makerere University, Uganda), Giampiero Iaffaldano (University of Copenhagen), Charles Williams (GNS, New Zealand), Sæmundur Halldórsson (University of Iceland)

U.S. Collaborators: Maurizio Battaglia (USGS, VDAP), Mong-Han Huang (University of Maryland), Corné Kreemer (University of Nevada, Reno), Estella and Elliot Atekwana (University of California, Davis), Bill Moore (Hampton University), John Naliboff (New Mexico Tech), Suzan Van der Lee (Northwestern University), Mike Taylor (University of Kansas), Andrew Katumwehe (Mid-Western State University), Rob Evans (WHOI), Tyrone Rooney (University of Michigan), Emmanuel Njinju (University of California, Davis), Aubreya Adams (Colgate University), Tolu Olugboji (University of Rochester)

Major Graduate Advisor: Eric Calais, Ecole Normale Supérieure (formerly Purdue University)

Major Postdoctoral Advisor: Brad Hager, Massachusetts Institute of Technology

19.0 REPORTS AND TECHNICAL NON-REFERRED PUBLICATIONS

[12] REPORT: Pre-Feasibility Study Report on Katwe-Kikorongo Volcanic Field in Southwestern Uganda: Kwagalakwe, Asenath, D. Sarah Stamps, Minaean SP Construction Corp. (2023)

[11] NSF GEOPRISMS WORKSHOP REPORT: Janiszewski, Helen; Condit, Cailey; Kitajima, Hiroko; Stamps, D. Sarah (2023): Report of the Structure and Deformation at Plate Boundaries GeoPRISMS Synthesis Workshop. 10.5281/zenodo.7482699

[10] WHITE PAPER: Evans, Eileen L.; Nikulin, Alex; Ford, Heather A.; Stamps, D. Sarah; Creasy, Neala; Swiatlowski, Jeryln; et al. (2020): An Early Career Investigator Community Vision for the Future NSF Geophysical Facility: Education, Workforce, and Outreach Needs. figshare. Online resource. https://doi.org/10.6084/m9.figshare.12398372.v1

[9] WHITE PAPER: Ford, Heather A.; Floyd, Michael; Stamps, D. Sarah; Mendoza, Manuel; Bozdag, Ebru; Bowden, Daniel; et al. (2020): An Early Career Investigator Community Vision for the Future NSF Geophysical Facility: Data Services Needs. figshare. Online resource. https://doi.org/10.6084/m9.figshare.12398321.v1

[8] WHITE PAPER: Stamps, D. Sarah; Eilon, Zach; Fan, Wenyuan; Lynner, Colton; Kehoe, Haiyang; Ford, Heather A.; et al. (2020): An Early Career Investigator Community Vision for the Future NSF

Geophysical Facility: Instrumentation Services Needs. figshare. Online resource. https://doi.org/10.6084/m9.figshare.12398288.v1

[7] NSF EARTHCUBE: A Position Paper on EarthCube adoption/promotion of principles embodied in the FAIR acronym for current and future activities, 2019, Rubin, K.H., Kelbert, A., Stamps, D.S., Meier, O., Koskela, R. and the EarthCube Leadership Council

[6] NSF EARTHCUBE REPORT: Ouida Meyer, D. Sarah Stamps, Lynne Schreiber, and the EarthCube Science Committee, 2018, EarthCube Resources for GEO-CI Workshops, https://doi.org/10.5281/zenodo.3371777

[5] NSF EARTHCUBE REPORT: David Arctur, Scott Peckham, D. Sarah Stamps, Bob Arko, Janet Fredericks, 2016, AIP Tiger Team Response to the Xenity Architecture Implementation Plan

[4] NSF EARTHCUBE SCIENCE COMMITTEE REPORT: Aronson E, Bristol S, Burgess AB, Chandrasekar V, Close H, van Eyken T, Ferrini V, Gomez B, Kinkade D, Kelbert A, Martin RL, Ritterbush K, Rubin K, Schmittner A, Slota S, Stamps DS, Stocks K, Tzeng MW, Wiebe P, Wood-Charlson E, 2015, Geoscience 2020: Cyberinfrastructure to reveal the past, comprehend the present, and envision the future, EarthCube Working Paper ECWP-2015-1, dx.doi.org/10.7269/P3MG7MDZ

[3] WHITE PAPER: Douglas B., R, Bennett, D.S. Stamps, N. Niemi, B. Wang, E. Nissan, M, Oskin, A. Duvall, M.Hamburger, 2015, Current directions of field science education with respect to geodetic technologies, White Paper for Workshop on Future Seismic and Geodetic Facility Needs in the Geosciences, May 4-6, 2015.

[2] WHITE PAPER: Stamps D.S. et al., 2013, An investigation of rift-parallel surface deformation along the East African Rift System, GeoPRISMS Planning Workshop for East African Rift, Morristown, NJ, 10/25/13-10/27/13.

[1] WHITE PAPER: Stamps D.S. et al., 2013, An investigation of plate boundary formation in Madagascar, GeoPRISMS Planning Workshop for East African Rift, Morristown, NJ, 10/25/13-10/27/13.

20.0 OPEN-ACCESS DATA PRODUCTS, JUPYTER NOTEBOOKS, AND SOFTWARE

*GTL graduate student author, **GTL undergraduate student author

[47] *Williams, Karen, Stamps, D. Sarah, **Kronebusch, Madeline, **Fry, Anabelle, **Floyd, Jasmine, Duda, James, Brem, Nichole J., Inzana, Eddy D., Hensel, Philippe, Hippenstiel, Ryan, Moore, William B., Geohegan, Charlie, Ulizio, Thomas P., Anderson, Roy, Jordan, Kevin S., Walters, David, Lerberg, Scott, Demeo, Alex, Fernish, Kyle, Quinn, Heather, Staley, Andrew, Downey, Luke, Gavin, Ben, Kramer, Lauren, McKenna, Thomas, Warner, Daniel L., 2024, Chesapeake Bay Vertical Land Motions 2023, GAGE Facility, GPS/GNSS Observations Dataset, https://doi.org/10.7283/2BBS-GE19

[46] *Kwagalakwe, Asenath, Nyago, Joseph, Nakajigo, Joan, Stamps, D. Sarah, Tugume, Fred, 2024, Uganda 2024 - HYDP, GAGE Facility, GPS/GNSS Observations Dataset, https://doi.org/10.7283/ESMW-4Z67

[45] ***Fry, Anabelle, ***Kronebusch, Madeline, ***Hughes, Holly, Stamps, D. Sarah, Duda, James, Brem, Nichole J., Inzana, Eddy D., Hensel, Philippe, Hippenstiel, Ryan, Moore, William B., Geohegan, Charlie, Ulizio, Thomas P., Anderson, Roy, Jordan, Kevin S., Walters, David, Crossman, Brendan, Lerberg, Scott, Demeo, Alex, Fernish, Kyle, Quinn, Heather, Staley, Andrew, Downey, Luke, Gavin, Ben, Kramer, Lauren, McKenna, Thomas, Warner, Daniel L., He, Changming, Hazewski, June, 2023, Chesapeake Bay Vertical Land Motions 2022, GAGE Facility, GPS/GNSS Observations Dataset, https://doi.org/10.7283/6BKC-4A59

[44] **Kronebusch, Madeline, **Troia, Gabrielle, Stamps, D. Sarah, Duda, James, Hensel, Philippe, Hippenstiel, Ryan, Moore, William B., Geohegan, Charlie, Ulizio, Thomas P., Franco, Sean, Anderson, Roy, Giron, Marco, Jordan, Kevin S., Walters, David, Crossman, Brendan, Lerberg, Scott, Demeo, Alex, Fernish, Kyle, Quinn, Heather, Lynch, James, Staley, Andrew, Downey, Luke, Gavin, Ben, 2022, Chesapeake Bay Vertical Land Motions 2021, The GAGE Facility operated by UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/4ENN-6906.

[43] Ntambila, Daud, Saria, Elifuraha, Stamps, D. Sarah, 2022, Tanzania, Natron Rift 2022, The GAGE Facility operated by UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/HBCH-9Y46.

[42] Troia, Gabrielle, Stamps, D. Sarah, Hensel, Philippe, Lotspeich, Robert R., McCoy, Kurt, Moore, William B., Nash, Jonathan, Hippenstiel, Ryan, McKenna, Thomas, Andreasen, David, Lokken, Scott, Geoghegan, Charles, Covington, Scott, Winn, Neil, Quinn, Heather, Staley, Andrew, Ulizio, Thomas P., Carr, Joel, Walters, David, Kronebusch, Madeline, 2022, Chesapeake Bay Vertical Land Motions 2020, UNAVCO, GPS/GNSS Observations Dataset, https://doi.org/10.7283/98DG-AJ14

[41] Stamps, D. Sarah, Tugume, Fred, Nyago, Joseph, Kwagalakwe, Asenath, 2022, Uganda GPS Network - UGN5-Hoima 2 P.S., The GAGE Facility operated by UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/5HQ8-JK20.

[40] Stamps, D. Sarah, Tugume, Fred, Nyago, Joseph, Kwagalakwe, Asenath, 2022, Uganda 2022 - BIIS and HYDP, The GAGE Facility operated by UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/FBVR-K683.

[39] Stamps, D. Sarah, Saria, Elifuraha, Hyeun Ji, Kang, Jones, J. Robert, Ntambila, Daud, Daniels, Mike, Mencin, Dave, 2021, Tanzania Volcano Observatory - OLO9-OLO9_OLO_TZA2021 P.S., The GAGE Facility operated by UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/EW7F-Z179.

[38] *Ntambila, Daud, Saria, Elifuraha, Stamps, D. Sarah, 2021, Tanzania, Natron Rift 2021, The GAGE Facility operated by UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/J0RZ-2C35.

[37] **Mason, Myles, John Wenskovitch, D. Sarah Stamps, *Joshua Robert Jones, Mike Dye, 2021, Volcanic activity detection and noise characterization using machine learning, EarthCube Annual Meeting, https://github.com/earthcube2021/ec21_mason_etal

[36] Dye, Mike, D. Sarah Stamps, **Myles Mason, 2021, Jupyter Notebook: Toward autonomous detection of anomalous GNSS data via applied unsupervised artificial intelligence, EarthCube Annual Meeting 2021, https://github.com/earthcube2021/ec21_dye_etal

[35] Scott Dale Peckham, Maria Stoica, D. Sarah Stamps, James Gallagher, Nathan Potter, David Fulker, 2020, An Interactive GUI for BALTO in a Jupyter notebook, https://github.com/earthcube2020/ec20_peckham_etal

[34] **Troia, Gabrielle, Stamps, D. Sarah, Hensel, Philippe, Lotspeich, Robert R., McCoy, Kurt, Moore, William B., Nash, Jonathan, Layton, Janelle, Hippenstiel, Ryan, McKenna, Thomas, Andreasen, David, Lokken, Scott, Geoghegan, Charles, Covington, Scott, Winn, Neil, Quinn, Heather, Staley, Andrew, Ulizio, Thomas P., *Williams, Karen, 2020, Chesapeake Bay Vertical Land Motions 2019, UNAVCO, GPS/GNSS Observations Dataset, https://doi.org/10.7283/M6D3-T837.

[33] *Rajaonarison, Tahiry A; Stamps, D Sarah; Fishwick, Stewart; Brune, Sascha; Glerum, Anne; Hu, Jiashun (2019): Synthetic Splitting Parameters and Synthetic Lattice Preferred Orientation (LPO) derived from Edge Driven Convection and Mantle Wind Models in Madagascar. PANGAEA, https://doi.org/10.1594/PANGAEA.909406, Supplement to: Rajaonarison, Tahiry A; Stamps, D Sarah; Fishwick, Stewart; Brune, Sascha; Glerum, Anne; Hu, J, 2020, Numerical Modeling of Mantle

Flow Beneath Madagascar to Constrain Upper Mantle Rheology Beneath Continental Regions. Journal of Geophysical Research: Solid Earth, 125(2), e2019JB018560, https://doi.org/10.1029/2019JB018560

[32] *Njinju, Emmanuel A; Atekwana, Estella A; Stamps, D Sarah; Abdelsalam, Mohamed G; Atekwana, Eliot A; Mickus, Kevin L; Fishwick, Stewart; Kolawole, Folarin; Rajaonarison, Tahiry A; Nyalugwe, Victor N (2019): Depth to Moho and depth to LAB beneath the Malawi Rift and surroundings generated from spectral analysis of WGM2012 Bouguer gravity anomalies. PANGAEA, https://doi.org/10.1594/PANGAEA.905100, Supplement to: Njinju, EA et al., 2019, Lithospheric Structure of the Malawi Rift: Implications for Magma-Poor Rifting Processes. Tectonics, 38(11), 3835-3853, https://doi.org/10.1029/2019TC005549

[31] *Njinju, Emmanuel A; Kolawole, Folarin; Atekwana, Estella A; Stamps, D Sarah; Atekwana, Eliot A; Abdelsalam, Mohamed G; Mickus, Kevin L, 2019, Terrestrial heat flow in the Malawi Rifted Zone, East Africa. PANGAEA, https://doi.org/10.1594/PANGAEA.905368, Supplement to: Njinju, EA et al. (2019): Terrestrial heat flow in the Malawi Rifted Zone, East Africa: Implications for tectono-thermal inheritance in continental rift basins. Journal of Volcanology and Geothermal Research, 387, 106656, https://doi.org/10.1016/j.jvolgeores.2019.07.023

[30] *Njinju, Emmanuel A; Atekwana, Estella A; Stamps, D Sarah; Abdelsalam, Mohamed G; Atekwana, Eliot A; Mickus, Kevin L; Fishwick, Stewart; Kolawole, Folarin; Rajaonarison, Tahiry A; Nyalugwe, Victor N, 2019, Depth to the lithosphere-asthenosphere boundary (LAB) beneath the Malawi Rift and surroundings generated from spectral analysis of WGM2012 Bouguer gravity anomalies. PANGAEA, https://doi.org/10.1594/PANGAEA.905098, In supplement to: Njinju, EA et al. (2019): Lithospheric Structure of the Malawi Rift: Implications for Magma-Poor Rifting Processes. Tectonics, 38(11), 3835-3853, https://doi.org/10.1029/2019TC005549

[29] *Njinju, Emmanuel A; Atekwana, Estella A; Stamps, D Sarah; Abdelsalam, Mohamed G; Atekwana, Eliot A; Mickus, Kevin L; Fishwick, Stewart; Kolawole, Folarin; Rajaonarison, Tahiry A; Nyalugwe, Victor N, 2019, Depth to Mohorovicic Discontinuity (Moho) beneath the Malawi Rift and surroundings generated from spectral analysis of WGM2012 Bouguer gravity anomalies. PANGAEA, https://doi.org/10.1594/PANGAEA.905099, In supplement to: Njinju, EA et al. (2019): Lithospheric Structure of the Malawi Rift: Implications for Magma-Poor Rifting Processes. Tectonics, 38(11), 3835-3853, https://doi.org/10.1029/2019TC005549

[28] Stamps, D. Sarah, Nyblade, Andy, Tugume, Fred, 2019, Uganda-Kenya Eastern Branch GNSS Network - UGN1, UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/5YWS-G946

[27] Stamps, D. Sarah, Nyblade, Andy, Tugume, Fred, 2019, Uganda-Kenya Eastern Branch GNSS Network - UGN2, UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/96K9-CY19

[26] Stamps, D. Sarah, Nyblade, Andy, Tugume, Fred, 2019, Uganda-Kenya Eastern Branch GNSS Network - UGN3, UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/NCNX-MF08

[25] Stamps, D. Sarah, Nyblade, Andy, Kianji, Gladys, 2019, Uganda-Kenya Eastern Branch GNSS Network - KYN1, UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/PGZG-QN51

[24] Stamps, D. Sarah, Nyblade, Andy, Kianji, Gladys, 2019, Uganda-Kenya Eastern Branch GNSS Network - KYN2, UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/879W-ZH24

[23] Stamps, D. Sarah, Nyblade, Andy, Kianji, Gladys, 2019, Uganda-Kenya Eastern Branch GNSS Network - KYN3, UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/JW25-DC44

[22] Stamps, D. Sarah, Nyblade, Andy, Kianji, Gladys, 2019, Uganda-Kenya Eastern Branch GNSS Network - KYN4, UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/0ZK5-HF19.

[21] Stamps, D. Sarah, Nyblade, Andy, Kianji, Gladys, 2019, Uganda-Kenya Eastern Branch GNSS Network - KYN5, UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/MC7S-S138

[20] Stamps, D. Sarah, Nyblade, Andy, Kianji, Gladys, 2019, Uganda-Kenya Eastern Branch GNSS Network - KYN6, UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/GWTD-X957.

[19] Stamps, D. Sarah, Nyblade, Andy, Kianji, Gladys, 2019, Uganda-Kenya Eastern Branch GNSS Network - KYN7, UNAVCO, Inc., GPS/GNSS Observations Dataset, https://doi.org/10.7283/TDCA-Z146

[18] Stamps, D.S., Saria, Elifuraha, Hyeun Ji, Kang, *Jones, J. Robert, *Ntambila, Daud, Daniels, Mike and Mencin, Dave, 2017a, TZVOLCANO: OLO6-OLO6_OLO_TZA2017 P.S., UNAVCO, GPS Data Set, doi:10.7283/T51V5CR2

[17] Stamps, D.S., Saria, Elifuraha, Hyeun Ji, Kang, *Jones, J. Robert, *Ntambila, Daud, Daniels, Mike and Mencin, Dave, 2017b, TZVOLCANO: OLO7-OLO7_OLO_TZA2017 P.S., UNAVCO, GPS Data Set, doi:10.7283/T5F47MW0

[16] Stamps, D.S., Saria, Elifuraha, Hyeun Ji, Kang, *Jones, J. Robert, *Ntambila, Daud, Daniels, Mike and Mencin, Dave, 2017c, TZVOLCANO: OLO8-OLO8_OLO_TZA2017 P.S., UNAVCO, GPS Data Set, doi:10.7283/T59C6W64

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21.0 PRE-FACULTY CONFERENCES AND WORKSHOPS

Nov 2014	UNAVCO Field Education Workshop, USA
May 2014	ASPECT Hack-a-thon, USA
Dec 2005-14	American Geophysical Union Fall Meeting, USA
July 2012	CIG Mantle-Lithosphere Dynamics Workshop, USA
Jan 2011	ExxonMobil Student Scientist Conference, USA
Jun 2010	AfricaArray Workshop, USA
Aug 2009	Advanced Workshop on Monitoring, Evaluating, and Communicating Seismic and Volcanic Hazards in East Africa – Trieste, Italy
May 2009	NSF MARGINS Rupturing Continental Lithosphere Workshop, USA
Apr 2009	European Geosciences Union, Austria
Feb 2009	Purdue Univ. Sigma Xi Research Forum, USA
Dec 2008	Purdue Univ. Ecological Sciences and Engineering Symposium, USA
Feb 2008-13	Purdue Univ. Earth & Atmospheric Sci. Graduate Student Expo, USA
Aug 2007	MAERC Research Experiences for Undergraduates, USA
July 2007	International Conference on the East African Rift - Kampala, Uganda
Jun 2006-14	UNAVCO Science Workshop, USA (special session leader, 2012)
Jun 2006	UNAVCO GAMIT/GLOBK Workshop, USA
Feb 2006	Tennessee Honors Council, USA

22.0 FIELDWORK EXPERIENCE

Uganda	GNSS deployment, student training, PI	2022
Kenya	GNSS deployment, student training, PI	2017, 2019
Hampton Roads, VA	GNSS campaigns, student training, PI	2018, 2019, 2021, 2023
Rainbow Basin, CA	Geologic Mapping course, instructor	2015
Madagascar	GPS campaigns, student training, PI	2010, 2012, 2014
Uganda	GPS campaign, training, PI	2007- 2010, 2012, 2014, 2018
La Jolla, California	Sedimentology	2011
Tanzania	GPS campaign, co-leader, PI	2006, 2008, 2012, 2014, 2016, 2017, 2019, 2024*
Haiti	GPS campaign, geodesist	2010
Texas and New Mexico	Geologic mapping	2010
Black Hills, South Dakota	Geologic mapping	2007

Death Valley, California	Stratigraphy and mapping	2006
Northern Caribbean	GPS campaign	2005
New Madrid Seismic Zone	GPS network maintenance	2005-2007