

Curriculum Vitae

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

Signature _____  _____
Date _____ 10/7/2014 _____

- **Please organize your CV using the headings and sub-headings in this template.**
- **In general, do not list a work or activity more than once.**
- **Certain sections with numerous sub-categories include a special sub-category for Historical data in which you can group, for convenience, all items from 10+ years ago.**

I. Personal Information

I.A. UID, Last Name, First Name, Middle Name, Contact Information

113336829
Lampkin, Derrick Julius
RM 3423
Computer and Space Sciences Building, University of Maryland, College Park, MD 20740
dlampkin@atmos.umd.edu

I.B. Academic Appointments at UMD

Assistant Professor, Department of Atmospheric and Oceanic Science, August 2013-present

I.C. Administrative Appointments at UMD

Include specific dates

I.D. Other Employment

2012-2013	<i>Research Faculty, University of Colorado, Boulder, Institute of Arctic and Alpine research (INSTAAR)</i>
2005-2012	<i>Assistant Professor of Geography, Pennsylvania State University Department of Geoscience, Pennsylvania State University</i>
2003-2005	<i>NASA Earth System Science Graduate Fellow, University of Arizona, Dept. of Geography</i>
2003-2004	<i>Research Assistant, Terrestrial Biophysics Remote Sensing Laboratory (TBRS)-Soil, Water, and Environmental Sciences, University of Arizona</i>
2000-2003	<i>Senior Research Scientist, NASA Southwest Regional Applications Center (RESAC) / Sustainability of semi-Arid Hydrology and Riparian Areas (SAHRA), Hydrology and Water Resources Department, University of Arizona</i>
1998-2000	<i>Research Assistant, Byrd Polar Research Center, Polar Remote Sensing Laboratory, Ohio State University</i>

1993 (Oct-Dec) *Research Field Assistant, Expedition to West Antarctica, Byrd Polar Research Center, Ice Dynamics Laboratory, Ohio State University*
 1991-1995 *Research Assistant, Polar Remote Sensing Laboratory, Ohio State University*
 1992 (June-August) *Research Intern, Smithsonian, Center for Earth and Planetary Studies, Air and Space Museum*

I.E. Educational Background

<i>Ohio State University</i>	<i>Geological Sciences</i>	<i>B.S., 1995</i>
<i>Ohio State University</i>	<i>Geography</i>	<i>M.A., 2000</i>
<i>University of Arizona</i>	<i>Geography</i>	<i>Ph.D., 2005</i>

I.F. Professional Certifications and Licenses

II. Research, Scholarly and Creative Activities

For each of the categories listed below follow these guidelines:

- *List published works first, in either chronological order or its inverse, followed (or preceded) by works not yet published but accepted for publication.*
- *If pre-print electronic publication (epub) exists, indicate and include URL and anticipated date of print publication.*
- *Submitted works under review or in progress should be listed in section II.L.*
- *Include page numbers as part of a complete citation for publications.*
- *Use the appropriate sub-headings for authored vs. edited works and between refereed vs. non-refereed outlets.*
- *All authors should be listed in the order they appear on the publication.*
- *When the work is a product of a large group (more than 10 authors), not all authors need be listed. As an example, the first three, the last three, and the individual him/herself (including his/her place in the total author list) may be listed.*

Authorship roles on published works are considered for APT purposes. As such, if relevant, use the following diacritics for works published within the past 10 years:

- *Use a ^ (caret) to designate the author with intellectual leadership on jointly authored papers (if it can be appropriately ascertained).*
- *Use a # (hash tag) to identify co-authors you mentored as undergraduate and graduate students, postdoctoral researchers, faculty research assistants, and junior faculty.*
- *Use an * (asterisk) to identify which author is the corresponding author.*

II.A. Books (include full citation information and ISBN)

II.A.1. Books Authored (*specify original or revised edition*)

II.A.2. Books Edited

II.A.3. Books Translated (*as translator*)

II.A.4. Textbooks

II.A.5. Major Reference Works

II.A.6. Exhibition Catalogs

II.A.7. Other

II.B. Chapters

II.B.1. Books

II.B.2. Collections

II.B.3. Encyclopedia

II.B.4. Series

II.B.5. Research Paper

II.B.6. Other

II.C. Articles in Refereed Journals

Full citation, inclusive of all authors in the order of publication and page numbers. Review articles and invited articles should be so identified. Optional: include DOI.

^*Koenig, L. S., Lampkin, D. J., #Montgomery, L. N., Hamilton, S. L., Turrin, J. B., #Joseph, C. A., Moutsafa, S. E., Panzer, B., Casey, K. A., Paden, J. D., Leuschen, C., and Gogineni, P. (2014), Wintertime storage of water in buried supraglacial lakes across the Greenland Ice Sheet, *The Cryosphere Discuss.*, 8, 3999-4031, doi:10.5194/tcd-8-3999-2014.

^*Lampkin, D.J., #N. Amador, B.R. Parizek, K. Farness, and K. Jezek (2013), Drainage from water-filled crevasse along the margins of Jakobshavn Isbræ: a potential catalyst for catchment expansion, *J. Geophys. Res.*, 118,19,doi:10.1002/jgrf.20039.

^*Lampkin, D.J., and #J. VanderBerg (2013), Supraglacial melt channel networks in the Jakobshavn Isbræ region during the 2007 melt season, *Hydrol. Process.*, 1099-1085. doi: 10.1002/hyp.10085.

^*Lampkin, D. J. and #U. Wade (2013), Evaluation of a Novel Inversion Model for Surface Melt Magnitude over the Greenland Ice Sheet During the 2002 Ablation Season. *International Journal of Remote Sensing* 34(19): 6931-6946. doi: 10.1080/01431161.2013.810351.

##Eveland, J., M. N. Gooseff, D. J. Lampkin, J.E. Barrett, and C. Takacs-Vesbach (2012), Spatial and temporal patterns of snow accumulation and ablation across the McMurdo Dry Valleys, Antarctica. *Hydrol. Process.*, doi:10.1002/hyp.9407.

^*Lampkin, D.J. (2011), Supraglacial lake spatial structure in western Greenland during the 2007 ablation season, *J. Geophys. Res.*, doi:10.1029/2010JF001725.

^*Lampkin, D.J. and J. #VanderBerg (2011), A preliminary investigation of the influence of basal and surface topography on supraglacial lake distribution near Jakobshavn Isbrae, Western Greenland. *Hydrol. Process.*, doi: 10.1002/hyp.8170.

^*Lampkin, D.J. (2010), Resolving Barometric Pressure Waves in Seasonal Snowpacks with a Prototype-Embedded Wireless Sensor Network. *Hydrol. Process.*, DOI: 10.1002/hyp.7540, Vol. 24, No. 14, pp. 2014-2021.

^*Lampkin, D.J. and #C. Karmosky (2009), Surface Melt Magnitude Retrieval over Ross Ice Shelf, Antarctica Using Coupled MODIS Optical and Thermal Satellite Measurements. *The Cryosphere Discuss.*, Vol. 3, pp. 1069-1107.

^*Lampkin, D.J. and #R. Peng (2008), Empirical Retrieval of Surface Melt Magnitude from Coupled MODIS Optical and Thermal Measurements Over the Greenland Ice Sheet during the 2001 Ablation Season. *Sensors*, Vol. 8, pp. 4915-4947; doi: 10.3390/s8084915.

*Bales, R.C., K.A. Dressler, B. Imam, S. R. Fassnacht, and D.J. Lampkin (2008), Fractional Snow Cover in the Colorado and Rio Grande Basins, 1995-2002. *Water Resour. Res.*, Vol. 44, pp. 1425-1435, doi:10.1029/2006WR005377.

*Nagler, P.L, J. Cleverly, E. Glenn, D.J. Lampkin, A. Huete, and Z. Wan (2005), Predicting Riparian Evapotranspiration from MODIS Vegetation Indices and Meteorological Data. *Remote Sens. of Environ.*, Vol. 19, pp. 17-30.

^*Lampkin, D.J. and S. Yool (2004), Monitoring Mountain Snow Pack Evolution Using Near Surface Optical and Thermal Properties. *Hydrol. Process.*, Vol. 18, pp. 3527-3542.

^*Lampkin, D.J. and S. Yool (2004), Numerical Simulations of MODIS Sensitivity Potential for Assessing Near Surface Mountain Snow Melt. *Geocarto International*, Special Centennial Issue, Vol. 19, No. 2, pp. 13-24.

^*Lampkin, D.J. (2003), An Experimental Optical Instrument for the Determination of Snow Accumulation in Alpine Environments. *International Journal of Fieldwork Studies*, Vol. 1, No. 1, pp. 1-11.

K.C.Jezek, C.Merry, D.Cavalieri, S.Grace, J.Bedner, D.Wilson, and D.Lampkin (1992), Comparison between SMMR and SSM/I passive microwave data collected over the Antarctic Ice Sheet. *Byrd Technical Report*, No. 91-03.

D.Wilson, K.C. Jezek, S.Grace, D.Lampkin (1993), Co-registration of a 1989 Antarctic digital elevation model with SSM/I brightness temperature data and animation of time series data. *Byrd Technical Report*, No. 92-02.

II.D. Published Conference Proceedings

II.D.1. Refereed Conference Proceedings

II.D.2. Non-Refereed Conference Proceedings

II.D.3. Historical Conference Proceedings (10+ years ago)

II.D.4. Other

II.E. Conferences, Workshops, and Talks

II.E.1. Keynotes

II.E.2. Invited Talks

Department of Geology Colloquium, University of Maryland, September 2014

Woods Hole Oceanographic Research Center, Falmouth, Massachusetts, February 2008

IEEE-GRSS Distinguished Lecture, Elizabeth City State University, November. 2007

Penn State University, Minority Faculty Reception, Invited Speaker, Fall 2010

Penn State University, College of Earth and Mineral Sciences, Invited Speaker, Earth System Science Center (ESSC), Climate

Dynamics Brown Bag, Fall 2010

Florida Agricultural and Mechanical University (FAMU), Environmental Sciences Institute,
Keynote Speaker for Annual
Environmental Research, Education and Career Forum, March 30, 2009, Tallahassee, Florida.

Penn State University, College of Earth and Mineral Sciences, Geography Department
Colloquium. Fall 2009

Society for the Advancement of Chicanos and Native Americans in Science (SACNAS), Invites
Speaker, Annual Meeting,
October, 2008, Salt Lake City, Utah.

Penn State University, College of Earth and Mineral Sciences, Invited Course Lecture (EM SC
470W, CAUSE Course –
Iceland), Spring 2008

Penn State University, College of Engineering, Invited Course Lecture (Civil ENG 597E, Water
Resources Research), Fall 2007

II.E.3. Refereed Presentations

2010 ^*Lampkin, D.J. and J. Vanderberg. “Estimation of Regional Surface Melt Volume Drainage due to
Surface Flow through Supra-glacial Streams in the Jakobshavn Drainage Basin, Western Greenland.”
International Glaciological Society, Byrd Polar Research Center, The Ohio State University, August 16-
20.

2010 ^* Lampkin, D.J., N. Amador, B. Parizek, K. Farness, and K. Jezek. “Fuel Injected Ice Stream:
Investigating Melt Water Injection along Jakobshavn Ice Stream Margins.” Midwest Glaciology Meeting,
Woods Hole Oceanographic Institute, April 15.

2008 ^*Lampkin, D.J. “Towards a Robotic Network for Improved Climate Monitoring on Ice Sheets:
Advancements in a Prototype System.” American Geophysical Union, San Francisco, California,
December 15-19.

2008 ^*Lampkin, D.J. “Spatio-Temporal Variability of Surface Melt Intensity Over the Greenland Ice
Sheet from 2000-2005 Using Coupled MODIS Optical and Thermal Measurements.” American
Geophysical Union, San Francisco, California, December 15-19.

2008 ^*Lampkin, D.J. “No More Snow Pits? Potential to Retrieve Bulk Snowpack Structure from
Transient Barometric Pressure Waves Measured from a Prototype Embedded Wireless Sensor Network.”
American Geophysical Union, General Assembly, San Francisco, California, December 10-14.

2008 ^*Lampkin, D.J. “Improved Assessment of Ice Sheet Surface Dynamics through Application of
Novel Satellite-Based Surface Melt Intensity Retrieval and Autonomous Rover Networks.” 35th Annual
Society for Advancement of Chicano and Native Americans in Science (SACNAS), Salt Lake City, Utah,
October 9-12.

2008 Lampkin, D.J. "Assessment of Surface Melt Intensity Using Coupled MODIS Optical and Thermal Measurements over the Greenland Ice Sheet." 65th Annual Eastern Snow Conference, Fairlee (Lake Morey), Vermont, May 28-30.

2008 *Lampkin, D.J. A. Howard, and M. Engerstedt. "Mobile Rivers for Improved Ice Sheet Climate Monitoring." 65th Annual Eastern Snow Conference, Fairlee (Lake Morey), Vermont, May 28-30.

2008 ^*Lampkin, D.J. "Potential to Retrieve Snow Pack Structure from Transient Barometric Waves Using an Embedded Wireless Sensor Network." 65th Annual Eastern Snow Conference, Fairlee (Lake Morey), Vermont, May 28-30.

2008 ^*Lampkin, D.J. and S. Yool, (2003). "Evaluation of MODIS Visible and Near-Infrared Bands for Monitoring the Onset of Near Surface Alpine Snow Melt: Implications for Regional Water Resources and Climate Variability." Oral Presentation at the American Association of Geographers, New Orleans, Louisiana, March 5-8. RSSG Student Paper Competition (Honorable Mention).

2008 ^*Lampkin, D.J. "From Binary to Magnitude: Estimation of Surface Melt Intensity over the Greenland Ice Sheet: Empirical Inversion Using Satellite Derived Optical/Thermal Measurements and Numerical Snowmelt Model." Midwest Glaciological Meeting, Burlington, Vermont, March 18-20.

2007 ^*Lampkin, D.J. and Steffen, K. "Estimation of Surface Melt Intensity Using MODIS Optical and Thermal Measurements over Western Greenland." European Geophysical Union (EGU) General Assembly, Vienna, Austria, April 15-20.

2006 ^*Lampkin, D.J. and A. Carleton. "Potential for Sea Ice Modulation of Antarctic Coastal Heat Flux: Implications for Ice Shelf Stability." European Geophysical Union (EGU) General Assembly, Vienna, Austria, April 15-20.

2006 ^*Lampkin, D.J. "Potential for Monitoring Mountain Snow Melt Dynamics Using Optical Satellites." American Geophysical Union, Western Pacific Geophysics Conference, Beijing, China, July 24-27.

2002 Lampkin, D.J. "Sub-Pixel Snow Cover Mapping Products Derived from AVHRR Data as Well as Recent Results from Application of Artificial Neural Network to Estimating Snow Under Clouds in AVHRR Imagery." National Snow and Ice Data Center, Boulder, Colorado, January 25.

2001 S.R. Fassnacht, K.A. Dressler, D.J. Lampkin, S.R. Helfrich, R.C. Bales, and B. Imam. (2001b). "Comparing AVHRR and Hydrologically Modeled Discontinuous Alpine Snow-Covered Area Estimates." *IEEE 2001 International Geoscience and Remote Sensing Symposium*, Sydney, Australia, July 9-13.

2001 Lampkin, D.J., S. Yool, and B. Imam. "Mapping Snow Cover Area and Vegetation in the Colorado Basin." American Society of Photogrammetry and Remote Sensing Annual Meeting, St. Louis, Missouri, April 23-27.

2000 Lampkin, D.J. "Comparison of Fraction versus Binary Satellite-Derived Snow Cover Maps for the Colorado River Basin." American Geophysical Union, Fall Meeting, San Francisco, California, December, 15-19.

2000 Lampkin, D.J. and B. Imam. "Southwest Regional Earth Science Application Center: Applications of Remote Sensing to Southwest Water Resources." National Geographic Information Systems Conference, Crystal Bay, Nevada, September 29 - October 3.

1994 Zimbelman, J.R., B. Campbell, J. Kousoum, and D.J. Lampkin. "Numerical Simulation of Lava Flows: Applications to the Terrestrial Planets." Lunar and Planetary Institute, 24th Annual Lunar and Planetary Science Conference, Part-3, pp. 1577-1578.

II.E.4. Refereed Abstracts

2014 #*Ring, A. M., ^D.J. Lampkin. "Spatio-Temporal Variability of Saturated Crevasses along the Margins of Jakobshavn Isbræ. American Geophysical Union, Fall Meeting, 2014, San Francisco, California.

2014 ^*Lampkin, D.J., B.R. Parizek, E. Larour, H. Seroussi, and M. Morlighem. "Shear Weakening due to Drainage from Water-Filled Crevasses along the Margins of Jakobshavn Isbræ. American Geophysical Union, Fall Meeting, 2014, San Francisco, California.

2009 ^*Lampkin, D.J. Examining the Relationship between Surface Melt Magnitude and Outlet Glacier Terminus Changes using coupled MODIS Optical and Thermal Signatures and LANDSAT over Vatnajokull Ice Cap from 2000-2008. American Geophysical Union, Fall Meeting, 2009, San Francisco, California.

2009 *#N. Amador, ^Lampkin, D.J., K. Farness, and K. Jezek. Examining Spatio-Temporal Relationships between Supra-Glacial Lake Distribution and Surface Velocity Fields in Western Greenland. American Geophysical Union, Fall Meeting, 2009, San Francisco, California.

2008 ^*Lampkin, D.J. Spatio-Temporal Variability of Melt Intensity Over the Greenland Ice Sheet from 2000-2005 Using Coupled MODIS Optical and Thermal Measurements. *EOS Transactions, AGU*, Fall Meeting, Suppl., C21A-0502, Vol. 89, No. 53, pp. 1.

2008 *#C. Karmosky, ^Lampkin, D.J. Surface Melt Magnitude Retrieval Over Ross Ice Shelf, Antarctica Using Coupled MODIS Optical and Thermal Satellite Measurements During the 2002-03 Melt Season. *EOS Transactions, AGU*, Fall Meeting Suppl., C31D-0544, Vol. 89, No. 53, pp. 1.

2008 *#A. Hurley, ^Lampkin, D.J.. Investigating Crevasse Structure Impact on Glacial Sub-Surface Ice Temperature Distribution with Implications for Moulin Formation. *EOS Transactions, AGU*, Fall Meeting Suppl., C31C-0527, Vol. 89, No. 53, pp. 1.

2008 *#K. Kennedy, ^Lampkin, D.J. Evaluating Spatio-Temporal Characteristics of Supra-Glacial Lakes in Western Greenland during the 2007 Melt Season using SPOT and LANDSAT Data. *EOS Transactions, AGU*, Fall Meeting Suppl., C31A-0475, Vol. 89, No. 53, pp. 1.

2007 *Howard, A, D.J. Lampkin, M. Engersted, P. Spollen, N. Mercurio, J. Allshouse, D. Santarelli, #C. Karmosky. Development of Autonomous, Robotic Meteorological Stations for Improved Ice Sheet Climate Monitoring. *EOS Transactions, AGU*, Fall Meeting, Suppl., IN24A-04, Vol. 88, No. 52, pp. 1.

2007 *#Peng, R, ^D.J. Lampkin, K. Steffen. Empirical Retrieval of Surface Melt Intensity using coupled MODIS Optical and Thermal Measurements over the Greenland Ice Sheet. *EOS Transactions, AGU*, Fall Meeting, Suppl., C23A-0939, Vol. 88, No. 52, pp.1.

2007 ^*Lampkin, D.J. No More Snow Pits? Potential to Retrieve Bulk Snow Pack Structure from Transient Barometric Pressure Waves measured from a Prototype Embedded Wireless Sensor Network. *EOS Transactions, AGU, Fall Meeting, Suppl.*, C21B-0458, Vol. 88, No. 52, pp. 1.

2004 ^*Lampkin, D.J., A. Nolin, and S. Yool. Tracking the Duration and Magnitude of Snow Albedo and Temperature Coupling During the Ablation Season. *EOS Transactions, AGU, Fall Meeting, Suppl.*, C23A-0979, Vol. 85, No. 47, pp. 1.

2003 ^*Lampkin, D.J. and S. Yool. Monitoring Mountain Snow Pack Evolution Using Near Surface Optical and Thermal Properties. *EOS Transactions, AGU, Fall Meeting Suppl.*, C41B-0968, Vol. 84, No. 46, pp. 1.

2003 *Bales, R.C., B. Imam, D.J. Lampkin, S. R. Helfrich, and S. R. Fassnacht. Fractional Snow Cover in the Colorado River and Rio Grande Basins, 1995–2002. Presentation at the 80th Annual Meeting of the American Meteorological Society. (*Symposium on Observing and Understanding the Variability of Water in Weather and Climate and the 17th Conference on Hydrology*), Long Beach, CA, February 9-13.

2002 Bales, R.C., B. Imam, D.J. Lampkin, S. R. Helfrich, S. R. Fassnacht, and R. E. Davis. Fractional Snow Cover in the Colorado River and Rio Grande Basins, 1995-2002. *EOS Transactions, AGU, Fall Meeting, Suppl.*, Vol. 83, pp. 1.

2001 Fassnacht, S.R., S.R. Helfrich, D.J. Lampkin, K.A. Dressler, R.C. Bales, E.B. Halper, D. Reigle, and B. Imam. A Snowpack Modeling of the Salt Basin with Water Management Implications. Proceedings of the 69th Annual Western Snow Conference, Sun Valley, Idaho, pp. 65-76.

2001 Imam, B, R.C. Bales, S. Sooroshian, S.R. Fassnacht, S. Helfrich, and D.J. Lampkin. Utility of Fractional Snow Cover in Water Resources Applications for Semi-Arid Regions. *EOS Transactions, AGU, Spring Meeting Suppl.*, B41C-07, Vol. 82, No. 20, pp. 1.

2001 Lampkin, D.J., R.C. Bales, S.R. Fassnacht, and R.E. Davis. Comparison of Fraction Versus Binary Satellite-Derived Snow Cover Maps for the Colorado Basin. *EOS Transactions, AGU, Fall Meeting, Suppl.*, H52B-10, Vol. 82, No. 47, pp. 1.

2000 Dressler, K. A., S.R. Fassnacht, R.C. Bales, R.E. Davis, D.J. Lampkin, and D.E. Myers. Geostatistical Interpolation of Point-Measured SWE in the Colorado River Basin. *EOS Transactions, AGU, Fall Meeting, Suppl.*, F397, Vol. 81, No. 48, pp. 1.

II.E.5. Refereed Posters

II.E.6. Refereed Panels

II.E.7. Non-Refereed Presentations

II.E.8. Non-Refereed Abstracts

II.E.9. Non-Refereed Posters

II.E.10. Non-Refereed Panels

II.E.11. Symposia

2006 Invited Participant, 17th Annual National Academy of Sciences Frontiers of Science Symposium, Irvine, California, October 27-29.

II.E.12. Workshops

2013 “Understanding the Response of Greenland’s Marine Terminating Glaciers to Oceanic and Atmospheric Forcing: Challenges to Improving Observations, Process Understanding and Modeling, US CLIVAR Workshop, June 4, Beverly, MA.

2006 “Improved Measurement for Assessment of Ice Sheet Stability in a Changing Climate.” Presentation and Planning Meeting, Georgia Tech, Workshop for NASA AIST Project, October 19-21.

2006 Invited Participant, Antarctic New Investigators Workshop, National Science Foundation, Washington, D.C., August 21-26.

2006 “Optical Remote Sensing for Monitoring Evolution of Ablation Season Mountain Snow Cover.” Presentation, Midwest Glaciology Meeting, The Pennsylvania State University, April 22.

2005 “Optical Satellite Remote Sensing for Monitoring Mountain Snowmelt.” Presentation, 4th Workshop of European Association of Remote Sensing Laboratories (EARSel)-Land Ice and Snow Group, Bern, Switzerland, February 21-23.

2005 “Ground Based Radiometry to Support Assessment of Snowmelt Discharge Timing”, Pennsylvania Ice Group (PICE), Department of Geoscience, February 3.

2004 “Optical Satellite Remote Sensing for Mapping Alpine Snowmelt.” Poster Presentation at NASA Snow and Ice User Workshop, Greenbelt, Maryland, November 15-17.

2004 “Monitoring Mountain Snow Pack Evolution Using Near Surface Optical and Thermal Properties, Poster Presentation at the First Symposium for the Earth Systems Scholars Network, October 27-29, Adelphi, Maryland.

2004 “Monitoring Mountain Snow Pack Evolution Using Near Surface Optical and Thermal Properties.” Oral Presentation at the International Geoscience and Remote Sensing Symposium entitled, “Science for Society: Exploring and Managing a Changing Planet.” September 20-24, Anchorage, Alaska, supported under the Minority Student Travel Program (MSTP).

II.E.13. Colloquia

II.E.14. Historical Conferences, Workshops, Talks (10+ years ago)

II.E.15. Other

II.F. Professional Publications

II.F.1. Reports and Non-Refereed Monographs

^*Lampkin, D.J. (2008), Acquisition of Portable Field Spectrometer for Research in Cryosphere Processes and Remote Sensing Education. Annual Profess Report for NSF Earth Science/Instrumentation and Facilities (EAR/IF)-EAR065135. Department of Geography, The Pennsylvania State University, PA.

*Howard,A., M. Egerstedt, and D.J. Lampkin (2008), Reconfigurable Sensor Networks for Fault-Tolerant, In-Situ Sampling. 2nd Year Annual Report for NASA

Advanced Information Systems Technology (AIST) -AIST 05-AIST05-0006.
Department of Electrical Engineering, Georgia Institute of Technology, Atlanta, GA,
Department of Geography, Pennsylvania State University, PA.

*Howard, A., M. Egerstedt, and D.J. Lampkin (2006), Reconfigurable Sensor Networks for Fault-Tolerant, In-Situ Sampling. 1st Year Quarterly Report for NASA Advanced Information Systems Technology (AIST) -AIST 05-AIST05-0006.
Department of Electrical Engineering, Georgia Institute of Technology, Atlanta, GA,
Department of Geography, Pennsylvania State University, PA.

Contributed to Integrated Global Observing Strategy (IGOS) Cryosphere Theme report commissioned by World Climate Research Program (WCRP) and Scientific Committee on Antarctic Research (SCAR), submitted December 2006.

Contribution to the Integrated Global Observing Strategy (IGOS) Cryosphere Theme report (section 11.2 Ground-Based Observations)
http://stratus.ssec.wisc.edu/cryos/docs/cryos_theme_report.pdf (Author List: <http://stratus.ssec.wisc.edu/igos-cryo/team.html>). This contribution highlights the importance of robotic ground-based technologies and their potential value in improving monitoring of ice sheet mass balance and stability.

II.F.2. Pre-Print/Working Paper (Not Work in Progress)

II.F.3. Legal Briefs

II.F.4. Policy Briefs

II.F.5. Other

II.G. Book Reviews, Notes, and Other Contributions

II.G. 1. Book Reviews

II.G. 2. Essays

II.G. 3. Notes

II.G. 4. Manuals

II.G. 5. Other

II.H. Completed Creative Works

II.H.1. Digital Media (e.g., CDs, DVDs)

II.H.2. Datasets

II.H.3. Constructed Projects

II.H.4. Demonstrations

II.H.5. Inventions

Developed a cost-effective prototype apparatus using off-the-shelf proprietary (Crossbow®) micro-wireless to improve acquisition of internal snowpack properties in alpine environments. The prototype sensor column was deployed in March 2006, the NSF supported Niwot Ridge, Long-Term Ecological Research (LTER) site. Instruments successfully measured snow depth, temperature, pressure over a week period.

II.H.6. Original Plans and Designs

II.H.7. Photography

- II.H.8. Software and Applications
- II.H.9. Websites
- II.H.10. Exhibitions and Installations
- II.H.11. Curatorial Practice
- II.H.12. Performance or Interpretation – Performing Arts
- II.H.13. Direction - Performing Arts
- II.H.14. Production - Performing Arts
- II.H.15. Costume, Stage, Multimedia, and Theatrical Design
- II.H.16. Artistic and Graphic Design
- II.H.17. Dramaturgy
- II.H.18. Artwork
- II.H.19. Choreography
- II.H.20. Playwriting, Screenwriting, and Musical Composition
- II.H.21. Works of Creative Writing
- II.H.22. Performance or Interpretation - Film, Video, and Multimedia
- II.H.23. Direction - Film, Video, and Multimedia
- II.H.24. Production - Film, Video, and Multimedia
- II.H.25. Citations and Reviews
- II.H.26. Historical Completed Creative Works (10+ years ago)
- II.H.27. Other

II.I Significant Works in Public Media

Specify the following – Title, Publication/Media Name, Contributors, Types (Print, online, broadcast, video, documentary)

II.I.1. Explanatory, Investigative, or Long-Form Journalism

II.I.2. Other Significant Journalism

II.I.3. Commentary/Analysis

II.I.4. Interactive Online Database

II.I.5. Other

II.J. Sponsored Research

List source, title, amount awarded, time period and role (i.e. principal investigator or co-investigator) in reverse chronological order or its inverse. If there are co-investigators, please list these.

II.J.1. Grants

Period: 2007 – 2008

Title: Acquisition of Portable Field Spectrometer for Research in Cryosphere Processes and Remote Sensing Education

Agency: NSF-Geoscience Instrumentation Program

Amount: \$69,458

Role: PI

Period: 2008 – 2009

Title: Field Campaign to Support Satellite-Based Approach for Improved Monitoring of Mountain Snowpack Melt Discharge (Unsolicited)

Agency: NASA-Terrestrial Hydrology Program

Amount: \$43,540

Role: PI

Period: 2006 – 2009

Title: Reconfigurable Sensor Networks for Fault-Tolerant In-Situ Sampling

Agency: NASA-Advanced Information Systems Technology Program

Amount: \$259,117

Role: Co-PI

Period: 2010 –2013

Title: Investigating Structural Controls on Spatio-Temporal Distribution of Supra-Glacial Lakes on the Greenland Ice Sheet using ICESat AND CryoSat-2

Agency: NASA-Studies with ICESat and CryoSat-2

Amount: \$296,500

Role: PI

Period: 2009 –2011; with performance-based option 2011-2012

Title: Mesoscale Climate Controls on Antarctic Ice Shelf Melt Dynamics: Climate Modeling and Novel retrieval of Melt magnitude using MODIS
Agency: NASA-Earth and Space Science Fellowship (C. Karmosky)
Amount: \$30,000/year, \$60,000 awarded thus far
Role: PI

Period: 2010 –2012
Title: EAGER: Are the Dry Valleys Getting Wetter? A Preliminary Assessment of Wetness across the McMurdo Dry Valleys Landscape
Agency: NSF-Antarctic Science
Amount: \$171,400
Role: Co-PI

Period: 2011-2013
Title: Collaborative Research: Decoding & Predicting Antarctic Surface Melt Dynamics with Observations, Regional Atmospheric Modeling and GCMs
Agency: NSF-Antarctic Science
Amount: \$257,801
Role: Co-PI

Period: Current
Title: Collaborative Research: Decoding & Predicting Greenland Surface Melt History and Future with Observations, Regional Atmospheric Modeling and GCMs
Agency: NSF-Artic Science
Amount: \$380,000
Role: Co-PI

Period: Current
Title: Utilizing MODIS for a Novel Retrieval of Surface Melt Magnitude over the Greenland Ice Sheet
Agency: NASA-Cryospheric Science NNH09ZDA001N-Cryo
Amount: \$283,219
Role: PI

II.J.2. Contracts

II.J.3. Other

II.K. Fellowships, Gifts and Other Funded Research

II.K.1. Fellowships

NASA Earth System Science Fellow 2003-2005

- II.K.2. Gifts
- II.K.3. Other

II.L. Submissions and Works in Progress

List press, journal, or granting agency.

II.L.1. Current Grant Applications

II.L.2. Manuscripts in Preparation

II.L.3. Manuscripts under Review (*indicate status: submitted or revising to resubmit*)

II.L.4. Working Papers in Preparation

II.L.5. Designs in Preparation

II.L.6. Other

II.M. Centers for Research, Scholarship, and Creative Activities

Specify Name of the Center, Description of Center, Collaborators, Start and End Dates.

II.M.1. Centers Established

II.M.2. Centers Directed

II.M.3. Symposia Organized (*through center*)

II.M.4. Other

II.N. Patents

II.N.1. Device

II.N.2. Other

II.O. Other Research/Scholarship/Creative Activities

III. Teaching, Mentoring and Advising.

III.A. Courses Taught

Include courses taught in the last five years. Indicate approximate enrollments and any unusual formats.

Course Taught at University of Maryland

Spring 2014	AOSC818	Frontiers in Atmospheric, Ocean, Climate, and Synoptic Meteorology Research	4
Fall 2013	AOSC818	Frontiers in Atmospheric, Ocean, Climate, and Synoptic Meteorology Research	18

Course Taught at Pennsylvania State University

Spring 2009	GEOG 115	Landforms of the World	64
Spring 2009	GEOG 497D	Radiometric Principles: Radiative	
		Modeling for Remote Sensing of Earth Surface Materials	
Spring 2009	METEO 597A	Remote Sensing of Earth Systems	19
Fall 2009	GEOG 362	Image Analysis	29
Spring 2008	GEOG 115	Landforms of the World	69
Spring 2008	GEOG 497D	Radiometric Principles: Radiative	7
		Modeling for Remote Sensing of Earth Surface Materials	
Spring 2008	METEO 597A	Remote Sensing of Earth Systems	8
Fall 2008	GEOG 362	Image Analysis	37

III.B. Teaching Innovations

III.B.1. Major Programs Established

III.B.2. Education Abroad Established

III.B.3. Software, Applications, Online Education, etc.

III.B.4. Instructional Workshops and Seminars Established

III.B.5. Course or Curriculum Development

III.B.6. Historical Innovations (10+ years ago)

III.B.7. Other

III.C. Advising: Research or Clinical

This refers to students whose projects the faculty has supervised as adviser, committee chair, or committee member (indicate role). The name of student, academic year(s) involved, and the name of institution if other than UMD should be indicated, as well as placement of the student(s), if the project is completed. List completed work first.

III.C.1. Undergraduate

Casey, Joseph (Atmospheric and Oceanic Sciences, University of Maryland), Advisor

Salvatore, Mark (Geography-Honors Thesis), Advisor, Completed, Spring 2008, *Placed as Graduate Student at Brown University*

Wade, Unique, (Electrical and Computer Engineering, Elizabeth City State University), SROP Advisor, Completed 2008.

Kennedy, Kirin (Geography, Pennsylvania State University), Advisor, Completed 2008.

Malingowsky, Julie (Meteorology, Pennsylvania State University), Advisor, Completed Spring 2008.

Hurley, Allison (Geography-Honors Thesis, Pennsylvania State University), Advisor, Graduated Summer 2009, *Placed as Graduate Student at University of Colorado, Boulder.*

Pedone, Richard (Mechanical Engineering, Pennsylvania State University), Senior Project Advisor, Completed Spring 2008.

McGraw, Anthony (Mechanical Engineering, Pennsylvania State University), Senior Project Advisor, Completed Spring 2008

Zedack, Daniel (Mechanical Engineering, Pennsylvania State University), Senior Project Advisor, Completed Spring 2008

Von Bredow, Hasso (Mechanical Engineering, Pennsylvania State University), Senior Project Advisor, Completed Spring 2008

Tumiran, Mohammad (Mechanical Engineering, Pennsylvania State University), Senior Project Advisor, Completed Spring 2008

Mercurio, Nicolas (Mechanical Engineering, Pennsylvania State University), Senior Project Advisor, Completed Spring 2006

Santarelli, David (Mechanical Engineering, Pennsylvania State University), Senior Project Advisor, Completed Spring 2006

Allshouse, Jason (Mechanical Engineering, Pennsylvania State University), Senior Project Advisor, Completed Spring 2006

Spollen, Peter (Mechanical Engineering, Pennsylvania State University), Senior Project Advisor, Completed Spring 2006

III.C.2. Master's

Justin Vanderberg (Geography, Pennsylvania State University), Advisor Completed, Spring 2011

David Doughty (Meteorology, Pennsylvania State University), Committee Member, Completed Fall, 2009

Justin, Randy (Geoscience, Pennsylvania State University), Committee Member, Completed Fall 2012

Rui, Peng (Geography, Pennsylvania State University), Advisor, Completed Fall, 2007

Tollerud, Heather (Geoscience, Pennsylvania State University), Committee Member

Amy Solomon (Atmospheric and Oceanic Sciences, University of Maryland), Advisor

Carolyn Plank (Geology, University of Maryland), Committee Member

III.C.3. Doctoral

Karmosky, Christopher, (Geography, Pennsylvania State University), Advisor, Completed, Spring 2012, *Placed as Tenure-Track Faculty at University of Tennessee-Martin.*

Christianson, Knut (Geoscience, Pennsylvania State University), Committee Member, Completed Spring 2011, *Placed as Research Faculty at Center for Geophysical Studies of Ice and Climate, St. Olaf College.*

Winberry, Paul (Geoscience, Pennsylvania State University), Committee Member, Completed, Spring 2008, *Placed as Tenure-Track Faculty at Central Washington University.*

Zoet, Lucas (Geoscience, Pennsylvania State University), Committee Member, Completed Spring 2012, *Placed as Postdoctoral Research Faculty at Iowa State University.*

Argie Kavvada (Atmospheric and Oceanic Sciences, University of Maryland), Committee Member, Completed Spring 2014

Allison Ring (Atmospheric and Oceanic Sciences, University of Maryland), Advisor

III.C.4. Post-doctoral

III.C.5. Other Research Directions (*K-12 Interactions*)

III.D. Mentorship

III.D.1. Junior Faculty

III.D.2. Other

III.E. Advising: Other than Research Direction

III.E.1. Undergraduate

III.E.2. Master's

III.E.3. Doctoral

III.E.4. Post-doctoral

III.E.5. Other Advising Activities

(Include advising student groups, special assignments, recruiting, etc.)

III.F. Professional and Extension Education

III.F.1. Professional Programs Established

III.F.2. Major Extension Programs

III.F.3. Workshops

III.F.4. Other

III.G. Other Teaching Activities

IV. Service and Outreach

IV.A. Editorships, Editorial Boards, and Reviewing Activities

Include participation for journals and other learned publications (print and electronic).

IV.A.1. Editorships

IV.A.2. Editorial Boards

IV.A.3. Reviewing Activities for Journals and Presses

Journal Reviewer for *The Cryosphere*, 2014

Journal Reviewer for *Nature-Geoscience*, 2012

Journal Reviewer for *Remote Sensing of Environment*, 2012

Journal Reviewer for *Journal of Geophysical Research, Earth Surface*, 2012

Journal Reviewer for *Journal of Geophysical Research, Earth Surface*, 2011

Journal Reviewer for *Remote Sensing of Environment*, 2011

Journal Reviewer for *International Journal of Remote Sensing*, 2010

Journal Reviewer for NASA Cold Land Processes Experiment (CLPX) Special Issue of the *Journal of Hydrometeorology*, 2007

IV.A.4. Reviewing Activities for Agencies and Foundations

Panelist for NASA-Icebridge Research (T. Wagner, Program Manager), 2014

Panelist for NASA-Terrestrial Hydrology (J. Entin, Program Manager), 2014

Panelist for NASA-Measures Solicitation (Lucia Tsaoussi), 2012

Reviewer for NSF-Geoscience Instrumentation Program (R. Kelz Program Manager), 2008.

Reviewer for NSF-Geoscience Instrumentation Program (R. Kelz Program Manager), 2007 and 2008.

Reviewer for IEEE International Geoscience & Remote Sensing Symposium, 2008.

Panelist for NASA Terrestrial Hydrology Program (2010), (J. Entin, Program Manager)

Reviewer for NASA Cryospheric Program (2011), (T. Wagner, Program Manager)

IV.A.5. Reviewing Activities for Conferences

IV.A.6. Historical Editorships, etc. (10+ years ago)

IV.A.7. Other

IV.B. Committees, Professional & Campus Service

IV.B.1. Campus Service – Department

Department of Atmospheric and Oceanic Sciences, Seminar Committee Chair, 2013, 2014

IV.B.2. Campus Service - College

IV.B.3. Campus Service - University

IV.B.4. Campus Service - Special Administrative Assignment

IV.B.5. Campus Service - Other

IV.B.6. Offices and Committee Memberships

IV.B.7. Leadership Roles in Meetings and Conferences

Appointed Member of American Geophysical Union (AGU), Cryosphere Section Executive Committee, Diversity and Outreach Office, Fall 2007-present.

Session Chair for Eastern Snow Conference Meeting, May 2008, Fairlee, Vermont.

Session Co-Chair, IEEE Remote Geoscience and Remote Sensing Symposium, IGARSS, September 2004, Anchorage, Alaska.

IV.B.8. Other Non-University Committees, Memberships, Panels, etc.

IV.B.9. Historical Committees, etc. (10+ years ago)

IV.B.10. Other

IV.C. External Service and Consulting

IV.C.1. Community Engagements, Local, State, National, International

IV.C.2. International Activities

IV.C.3. Corporate and Other Board Memberships

IV.C.4. Entrepreneurial Activities

IV.C.5. Consultancies (*to local, state and federal agencies; companies; organizations*)

IV.C.6. Historical External Service and Consulting (10+ years ago)

IV.C.7. Other

IV.D. Non-Research Presentations

IV.D.1. Outreach Presentations

Center for Remote Sensing of Ice Sheets (CRESIS) Teacher's Workshop: "The Heat is On! Confronting Climate Change in the Classroom, Lecturer (Su 2010) (High School Teachers)

Panelist for Graduate Seminar Series on Professionalization (Spring 2007)

IV.D.2 Other

IV.E. Media Contributions

IV.E.1. Internet

IV.E.2. TV

IV.E.3. Radio

IV.E.4. Digital Media

IV.E.5. Print Media

IV.E.6. Blogs

IV.E.7. Feeds

IV.E.8. Other

IV.F Community & Other Service

V. Awards, Honors and Recognition

V.1. Research Fellowships, Prizes and Awards

V.2 Teaching Awards

V.3 Service Awards and Honors

V.4 Recognition in Media

V.5 Other Special Recognition

VI. Other Information