**Curriculum Vitae**

1. **Personal Information**
   1. Contact Information

Dr. Maria Zubkova

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4600 River Road, Office 311

Riverdale, MD 20737

* 1. Academic Appointments at UMD

Assistant Research Professor (07/2022 – Present)

Post-Doctoral Associate (01/2020 – 06/2022)

I.D. Other Employment

Graduate Research Assistant at the University of Idaho, ID (2015 – 2019)

GIS InternatNextGIS, Russia (2014)

Graduate Research Assistant at the Mediterranean Agronomic Institute of Chania, Greece (2012 –2014)

I.E. Educational Background

Ph.D., Natural Resources, University of Idaho, ID (2015 – 2019)

M.Sc., Geoinformation in Environmental Management, Mediterranean Agronomic Institute of Chania, Greece (2011 – 2014)

M.Sc., Landscape Gardening, Russian State Agrarian University, Russia (2006 – 2011)

I.G. Professional Certifications, Licenses, and Memberships

Cooperative Institute for Satellite Earth System Studies (CISESS) of the Earth System Science Interdisciplinary Center (ESSIC) at the University of Maryland, Scientist (2020-present)

American Geophysical Union (AGU), Member (2017-2021)

Women in GIS, Member (2022)

Association for Women Geoscientists, Member (2022)

Society for Conservation Biology, Member (2022)

Society for Conservation GIS, Member (2022-present)

International Association of Wildland Fire, Member (2022-present)

European Geosciences Union (EGU), Member (2023-present)

1. **Research, Scholarly, Creative and/or Professional Activities**

II.B. Chapters

II.B.1. Books

Giglio, L.; Roy, D.P.; Humber, M.L.; Ellicott, E.; **Zubkova, M**.; Justice, C.O. Chapter 3: Mapping and Characterizing Fire. In T. Loboda, N. H.F. French, R. Puett (Eds.), *Fire, Smoke and Health: tracking the modeling chain from flames to health and wellbeing*. (In press).

II.C. Refereed Journals

II.C.1. Refereed Journal Articles

**Zubkova, M.**;Humber, M.; Giglio, L. 2023. Is global fire activity declining due to cropland expansion? How much do we know based on remotely sensed data? *International Journal of Remote Sensing*, 44, 4.

**Zubkova, M**.; Boschetti, L.; Abatzoglou, J.; Giglio, L. 2022. Fire regions as environmental niches: a new paradigm to define potential fire regimes in Africa and Australia. *JGR Biogeosciences*.

Nakalembe, C.L.; **Zubkova, M**.; Hall, J.V.; Argueta-Hassel, F.; Giglio, L. 2022. The Impacts of Large-Scale Population Displacement on Land Cover and Land-Use: Bidi Bidi Refugee Settlement, Uganda Case Study. *Environmental Research Letters*, 17 064019.

Humber, M.; **Zubkova, M**.; Giglio, L. 2022. A Remote Sensing-based Approach to Estimating Global Fire Spread Rates. *International Journal of Remote Sensing,* 43:2, 649-673.

**Zubkova, M**.; Giglio, L.; Humber, M.; Hall, J.H.; Ellicott, E. 2021. Conflict and Climate: Drivers of Fire Activity in Syria in the Twenty-First Century. *Earth Interactions*, 25(1): 119-135.

**Zubkova, M**.; Boschetti, L.; Abatzoglou, J.; Giglio, L. 2019. Changes in Fire Activity in Africa from 2002 to 2016 and Their Potential Drivers. *Geophysical Research Letters*, 46(13): 7643-7653.

Boschetti, L.; Roy, D.; Giglio, L.; Huang, H.; **Zubkova, M**.; Humber, M. 2019. Global validation of the Collection 6 MODIS burned area product. *Remote Sensing of Environment*, 217: 72-85.

Abatzoglou, J.; Williams, P.; Boschetti, L.; **Zubkova, M**.; Kolden, C.A. 2018. Global patterns of interannual climate‐fire relationships. *Global Change Biology*, 24(1): 5164-5175.

II.C.3. Perspectives, Opinions, and Letters

**Zubkova, M**. and Giglio, L. 2022. Letter to the Editor on ‘Nonlinear dynamics of fires in Africa over recent decades controlled by precipitation’. *Global Change Biology*, 28(4): 1197-1199.

Giglio, L; **Zubkova, M**.; D. Roy. 2022. Comment on Otón, G., et al. Analysis

of Trends in the FireCCI Global Long Term Burned Area Product (1982–2018). *Fire*, 5(2), 52.

II.E. Conferences, Workshops, and Talks

II.E.2. Invited Talks

Boschetti, L.; Roy, D.; Giglio, L.; **Zubkova, M**.; Sparks, A.; Humber, M., “Global Fire Monitoring from Space (the use and misuse of satellite fire products)”. University of Idaho, Department of Forest, Rangeland and Fire Sciences, Feb. 18th, 2020.

Boschetti, L; Roy, D.P.; Giglio, L.; Stehman, S.; Humber, M.; **Zubkova, M**.; Melchiorre, A.; Huang, H.; Huo, L-Z., “Validation of the MODIS Collection 6 MCD64 Global Burned Area Product”. American Geophysical Union (AGU) Fall Meeting, New Orleans, LA, Dec. 10 – 15, 2017.

Giglio, L.; Hall, J.; Humber, M.; **Zubkova, M**.; Roy, D.; Boschetti, L.; Argueta, F.; Schroeder, W.; Justice, C., “NASA Fire Product Status”. GOFC-GOLD Fire Implementation Team meeting, Stresa, Italy, Jun. 21-23, 2022.

Giglio, L.; Roy, D.; **Zubkova, M**.; Hall, J., “Extending the global fire record back in time before MODIS”. GOFC-GOLD Fire Implementation Team meeting, Stresa, Italy, Jun. 21-23, 2022.

II.E.3. Refereed Presentations

**Zubkova, M**.; Humber, M.; Giglio, L. “Is global fire activity declining due to cropland expansion? How much do we know based on remotely sensed data?” European Geosciences Union (EGU), Vienna, Austria, Apr. 24 – 28, 2023.

**Zubkova, M**.; Giglio, L.; Humber, M.; Hall, J.H.; Ellicott, E. “Conflict and Climate: Drivers of Fire Activity in Syria in the Twenty-First Century”. American Geophysical Union (AGU) Fall Meeting, New Orleans, LA, Dec. 13 – 17, 2021.

Boschetti, L; Roy, D.P.; Giglio, L.; Humber, M.; **Zubkova, M**.; Melchiorre, A.; Huang, H.; Huo, L-Z., “CEOS Stage 3 Validation of the MODIS Collection 6 MCD64 Global Burned Area Product”. Land Product Validation and Evolution Symposium, European Space Agency, Frascati (IT), Feb. 28-Mar. 2, 2018.

Boschetti, L; Roy, D.P.; Giglio, L.; Humber, M.; Kumar, S.; **Zubkova, M**.; Melchiorre, A.; Huang, H.; Huo, L-Z., “Validation of the MODIS Collection 6 MCD64 Global Burned Area Product”. 11th EARSeL Forest Fires SIG Workshop, Chania, Greece, Sep. 25 – 26, 2017.

Gitas, I.; Kalaitzidis C.; **Zubkova, M**.; Mallinis, G. “Monitoring treeline shift over a 60-year period using object-based image analysis of aerial photography and satellite data”. 5th GEOBIA, Thessaloniki, Greece, May 21 - 24, 2014.

II.E.6. Refereed Posters

**Zubkova, M**. “How conflicts and climate variability shape fire activity in Syria,” Johns Hopkins Postdoctoral Conference, April 2021.

**Zubkova, M**.; Boschetti, L.; Abatzoglou, J., Giglio, J. “Global wildfire regimes and drivers of their spatial and temporal variability,” AAAS, Washington DC, Feb. 14–17, 2019.

**Zubkova, M**.; Boschetti, L.; Abatzoglou, J., Giglio, J. “Changes in Fire Activity in Africa from 2002 to 2016 and Their Potential Drivers,” AGU Fall Meeting, Washington DC, Dec. 10–14, 2018.

**Zubkova, M**.; Boschetti, L.; Abatzoglou, J. “Climate controls on inter-annual variability and trends in fire activity in the African and Australian Continents,” AGU Fall Meeting, New Orleans, LA, Dec. 11 – 15, 2017.

**Zubkova, M**.; Boschetti, L.; Abatzoglou, J. “Climate controls on inter-annual variability and trends in fire activity across Africa,” 2017 Conference on Fire Prediction Across Scales Columbia University, New York City, NY, Oct. 23 – 25, 2017.

Abatzoglou, J.; Williams, P.; Boschetti, L.; **Zubkova, M**.; Kolden, C. “Global patterns of interannual fire-climate relationships,” 2017 Conference on Fire Prediction Across Scales Columbia University, New York City, NY, Oct. 23 – 25, 2017.

**Zubkova, M**.; Boschetti, L. “Characterizing global fire return intervals from the MODIS data record,” AGU Fall Meeting, San Francisco, CA, Dec. 12 – 16, 2016.

II.E.8. Non-Refereed Presentations

**Zubkova, M**. “Direct and indirect impacts of human conflict on wildfires,” Women in GIS Meeting, Apr. 6, 2022

II.J. Works in Progress

Hall, J.V.; Argueta, F.; **Zubkova, M**.; Chen, Y.; Randerson, J.T.; Giglio, L. Global Cropland Burned Area from (2003 – 2020).

II.K. Sponsored Research and Programs – Administered by the Office of Research Administration (ORA)

II.K.1. Grants

Sponsor: NASA - Washington (Headquarters); Title: Support and Maintenance of S-NPP and JPSS VIIRS Global Active Fire and Burned Area Earth System Data Records; Amount: $267,345; Period: 3 years (09/01/2021 - 08/31/2024); Role: Co-Investigator; Other Senior Personnel: L. Giglio (Principal investigator), J.V. Hall (Co-Investigator), M.L. Humber (Co-Investigator).

Sponsor: NASA - Washington (Headquarters); Title: Support and Maintenance of Near Real-Time Landsat and Harmonized Geostationary Satellite Active Fire Data in FIRMS; Amount: $ 150,000; Period: 3 years (08/04/2022 - 08/03/2024); Role: Co-Investigator; Other Senior Personnel: L. Giglio (Principal investigator).

Sponsor: NASA - Washington (Headquarters); Title: LANCE FIRMS Sentinel-3 Fire Pilot Study; Amount: $ 458,000; Period: 1 years (07/01/2022 - 09/30/2023); Role: Co-Investigator; Other Senior Personnel: L. Giglio (Principal investigator).

Sponsor: NASA - Washington (Headquarters); Title: A Five-Decade Multi-Sensor Global Burned Area Data Record; Amount: $ 2,490,000; Period: 5 years; Role: Co-Investigator; Other Senior Personnel: L. Giglio (Principal investigator).

Sponsor: NASA - Washington (Headquarters); Title: Understanding the Impacts of Armed Conflicts on Agriculture, Fires, and Land Abandoned in Somalia; Amount: $ 750,000; Period: 3 years; Role: Principal investigator; In review.

II.Q. Research Fellowships, Prizes and Awards

Outstanding Post-doctoral Associate in the Department of Geographical Sciences, 2022

College of Natural Resources Graduate Fellowship award 2019 with the total of $10,588

4th place at The Three Minute thesis competition

1. **Teaching, Extension, Mentoring, and Advising**
   1. Courses Taught

FOR 375 - Introduction to Spatial Analysis for Natural Resource Management (Fall 2017, Fall 2018, 60 students), TA

SEM 301 - Climate, Carbon and Forests (Fall 2015, 15 students), TA

III.C. Advising: Research or Clinical

III.C.2. Master’s

Haogang Ji (Spring 2023) MSc Capstone Project mentor

Jesse Warren (Spring 2023) MSc Capstone Project mentor

Tameka Rochelle Smith (Fall 2022) MSc Capstone Project mentor

Alexander Leikin (Spring 2022) MSc Capstone Project mentor

Georgina Crepps (Summer 2021 – 2022) MSc Research Project Advisor

III.C.3. Doctoral

Rizos-Theodoros Chadoulis (2023) Visiting PhD student from CERTH, Greece

III.D. Mentorship

III.D.2. Other

Amanda Voropaeff (2023 – present) MSc student at UMD

Sandupal Dutta (2023 – present) PhD student at Johns Hopkins University, US

Maruko Kogure (2021– 2023) BSc student at UMD

Sophia Zipparo (2022) alumna of the department of Geographical Sciences

Eunice Wachira (2022) MSc student at Jomokenyatta University, Kenya.

1. **Service and Outreach**
   1. Editorships, Editorial Boards, and Reviewing Activities

IV.A.2. Editorial Boards

Co-Editor of a Remote Sensing special issue “Remote Sensing Applications in Wildfire Research and Management”.

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

Peer reviewer for manuscripts in: Nature, Scientific Reports, Ecology and Society, Geophysics, Forests, Atmospheric Chemistry and Physics, Remote Sensing, Ecosystems, and Geocarto International, Fire

IV.A.5. Reviewing Activities for Conferences

Reviewed 8 students’ applications for David S. Miller Young Scientist Scholarship and AGU Fall Meeting Berkner Travel Fellowship (Fall 2022)

Judge of the Poster Showcase at the American Geophysical Union (AGU) Fall Meeting, New Orleans, LA, Dec. 13 – 17, 2021.

* 1. Committees, Professional & Campus Service
     1. Campus Service – Department

Research Faculty Merit Committee member (2022-2023)

Volunteer at High school banquet (Jun 2022)

Department Graduate Committee, Research Faculty Representative (2021 – 2023)

Presented at the Meet the Research Faculty (Fall 2021, Fall 2022)

Tenure promotion review committee, University of Idaho (2018)

* + 1. Campus Service – College

Participated in the BSOS Buddy program (Fall 2021, Fall 2022)

* + 1. Campus Service – University

Member of the Graduate School Success Team's Near/Peer Mentoring Program

Judge at the 2021, 2022, and 2023 Graduate Research Appreciation Day

Terps in Space Mission 17 Review Panel

IV.B.8. Leadership Roles in Meetings and Conferences

One of the organizers of the Society for Conservation GIS International Annual Conference 2022 and 2023

Chair of the “Wildfire and Conservation” session at the Society for Conservation GIS conference (2023)

Moderator for the “Conservation Remote Sensing” and “Climate Change” sessions at the 2022 SCGIS conference

IV.E. Media Contributions

IV.E.1. Internet

Was interviewed by Jeff Tollefson, Senior US Correspondent of Nature News (09/2022)

Press release about Zubkova et al. (2018) by Leigh Cooper

https://www.uidaho.edu/news/news-articles/news-releases/2019-june/062719-fewerfiresinafrica