# Maria D. Kazachenko

***Assistant Professor***

Solar Magnetism Group

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## PROF MARIA D. KAZACHENKO: CURRICULUM VITAE

### SUMMARY


I am an assistant professor and head of the *Solar Magnetism Group* at University of Colorado Boulder and the National Solar Observatory (NSO). My research group includes 11 members, from undergrads to research scientists, focusing on improved understanding of the Sun's magnetic field evolution and methods of coupling observations and statistical analysis with theoretical models. Solar eruptive events – flares and coronal mass ejections – are sudden releases of massive amounts of energy stored in the magnetic field. Hence better understanding of the magnetic nature of those events will help us better understand, and hopefully predict, the drivers of Space Weather.

I graduated from Montana State University, Bozeman with a Master/PhD in Physics. I then joined the University of California at Berkeley first as an NSF SHINE Postdoctoral Fellow and then as an Associate Research Physicist. In August 2018, inspired by construction of the largest solar telescope in the world (DKIST) by the NSO on Maui, HI, I left UC Berkeley and came to Boulder as an assistant professor. Since then, I received awards and grants including the Early Career awards from the NSF and NASA, Robert Bartnik and Brinson Prize Fellowships. I was elected to serve on various steering committees, including chair of the Solar Heliospheric & Interplanetary Environment (SHINE, a yearly meeting of ~300 heliophysicists) steering committee, member and chair of various Solar Physics Division Committees of American Astronomical Society and member of the Critical Science Plan for the DKIST team. Recently, I have led an International Space Science Institute Team, Switzerland to improve current understanding of plasma flows on the Sun. I am also passionate in teaching and outreach: I have led public outreach events in English and Spanish, including the National Solar Observatory team during annular and total solar eclipses in 2023/2024 on the US/Mexico border.


### EDUCATION

| | | |
|---|---|---|
| Montana State University, Bozeman | Ph.D. & M.A., Physics, summa cum laude | 11/2010 |
| St. Petersburg State University, Russia | M.A., Mathematics, summa cum laude | 08/2005 |

### SELECTED AWARDS AND HONORS

| | |
|---|---|
| International Space Science Institute Team, **Team Lead**, Switzerland | 2023 – 2025 |
| Brinson Foundation Fellowship, $300,000, **PI** | 2022 – 2025 |
| American Physical Society, Spherical Cow Award, **Best Talk** | 2021 |
| NSF *CAREER* Award, 874,082$, **PI** | 2020 – 2025 |
| NASA Heliophysics *Early Career Investigator* Award, $874,108, **PI** | 2019 – 2024 |
| Robert Bartnik Visiting Fellowship, Monash University, Australia, $11,000, **PI** | 2019 |
| NSF SHINE Postdoc Fellowship, $168,277, **PI** | 2011 – 2013 |

## OTHER GRANTS AND FELLOWSHIPS

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|---|---|
| NASA Guest Investigator, $470,259, **Co-I,** led by **R. French** | 2025 – 2028 |
| DFG 577K, unfunded collaborator, led by J-M. Borrero | 2025 – 2028 |
| Solar Physics Division EPO Eclipse Grant, $2000, **PI** | 2024 |
| Jay M. Pasachoff Solar Eclipse Mini-Grant, $5000, **Co-I**, led by **R. French** | 2024 |
| DKIST/NSF Ambassador Fellowship, $194,27, **PI** | 2023 – 2025 |
| DKIST/NSF Ambassador Fellowship, $190,30, **Co-I,** led by A. Kowalski | 2023 – 2025 |
| Brinson Travel Grant, $3,000, **PI** | 2022 |
| NASA Living With a Star, 184,000, **Co-I,** led by **B. Tremblay** | 2022 – 2023 |
| NASA FINESST, $135,000, **PI**, led by **D. Tilipman** | 2021 – 2024 |
| NASA Heliophysics Supporting Research, 122,000$, **Co-I,** led by A. Malanushenko | 2021 – 2024 |
| NSF DKI Solar Telescope Lev-2 Data Products Development Award, 357,000$, **PI** | 2019 – 2023 |
| NASA Living With a Star, $139,000, **Co-I,** led by B. Lynch | 2018 – 2022 |
| NASA Living With a Star, $262,000$, **Co-I**, led by Y. Fan | 2018 – 2022 |
| NASA Guest Investigator, 150,000$, **Co-I**, led by J. Linker | 2018 – 2022 |
| NASA Heliophysics Supporting Research, **Co-I**, led by D. Bercik | 2017 – 2021 |
| NSF SHINE Research Grant, **PI** | 2016 – 2019 |
| NASA Heliophysics Supporting Research Grant, **Co-I ,** led by W. Abbett | 2015 – 2017 |
| NASA Guest Investigator Grant, **PI** | 2015 – 2018 |
| NASA Heliophysics Research Grant, **Co-I**, led by G. Fisher | 2013 – 2017 |
| NASA/NSF Living With a Star Grant, **Co-I**, led by G. Fisher | 2013 – 2018 |

## EMPLOYMENT HISTORY & RESEARCH EXPERIENCE

**Assistant Professor**, University of Colorado, Boulder, CO — 2018 – Present
**Research:** Data-driven modeling of coronal magnetic fields; Preparing for Data from DKI Solar Telescope (DKIST); Statistical studies of solar flares.

**Associate & Assistant Res. Scientist**, University of California Berkeley, CA — 2013 – 2019
**Research:** Observations and modeling of two-ribbon eruptive flares; Data-driven modeling of coronal magnetic fields.

**NSF SHINE Postdoctoral Fellow,** University of California Berkeley, CA — 2011 – 2012
**Advisor:** George H. Fisher
**Research:** Development and validation of electric-field-inversion methods.

**NASA ESSF Research Assistant,** Montana State University, Bozeman, MT — 2005 – 2010
**Advisors:** Richard C. Canfield, Dana Longcope, Jiong Qiu
**Research:** 3D topological modeling of energy and helicity accumulation and release in solar flares.

**Summer Research Assistant,** NSO, Sunspot, NM — Summer 2004
**Advisors:** Alexei Pevtsov
**Research:** Role of magnetic reconnection in coronal heating.

## TEACHING

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|---|---|
| **ASTR-2100** Fundamental Concepts in Astrophysics, CU Boulder | Spring 2026 |
| **ASTR-2100** Fundamental Concepts in Astrophysics, CU Boulder | Spring 2025 |
| **PHYS-7160** Guest lecturer, CU Boulder | April 2024 |
| **ASTR-3760** Solar and Space Physics course, CU Boulder | Spring 2023 |
| **ASTR-5700** Stellar Astrophysics course, CU Boulder | Spring 2020 |
| **PHYS 7810** Special Topics in Physics: Solar Physics with DKIST | Spring 2020 |
| **ASTR-3760** Solar and Space Physics course, CU Boulder | Spring 2019 |
| **REU Summer schoo**l, programming course, CU Boulder | Summer 2019 |
| **REU Summer schools**, programming course, UC Berkeley | Summers: 2014 to 2017 |

## CURRENT STUDENTS / POSTDOCTORAL SCHOLARS / RESEARCH SCIENTISTS

| | |
|---|---|
| **Graduate** student, Katelyn Sonnen, CU Boulder | Sep 2025 – Present |
| **Brinson Postdoctoral** Fellow / Res. Sci., Ryan French | Jul 2022 – Present |
| **Postdoctoral** Fellow / Res. Sci., Rahul Yadav | Jan 2022 – Present |
| **Graduate** student, Cole Tamburri, CU Boulder | Sep 2020 – Present |
| **Graduate** student, Marcel Corchado, CU Boulder | Sep 2020 – Present |
| **Graduate** student, Dennis Tilipman, CU Boulder, *on leave till 2026* | Jan 2020 – Present |
| **DKIST Ambassador** Fellow / Res. Sci., Andrei Afanasev, CU Boulder | Jan 2020 – Present |

## PAST PHD STUDENTS and POSTDOCTORAL SCHOLARS

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|---|---|
| **Hale Postdoctoral** Fellow, Dr. Benoit Tremblay, Primary Advisor, CU Boulder | 2019 – 2023 |
| *Now:* Civil Servant in Canadian Weather Prediction Center, Montreal | |
| **Graduate** Erkka Lumme, Co-Adv. (Primary Emilia Kilpua), Univ. of Helsinki | 2017 – 2020 |
| *Now*: working in private industry in Helsinki | |
| **Master** student, Louis Seyfritz, Observatory of Paris | Spring 2025 |
| *Now*: PhD student with Bin Chen, New Jersey Institute of Technology | |
| **Master** student, Abdullah Alshaffi, CU Boulder | 2023 – 2025 |
| *Now*: PhD student with Nick Featherstone, CU Boulder | |
| **Master** student, James Crowley, CU Boulder, co-advisor | 2023 – 2024 |
| *Now*: PhD student with Kevin Reardon, CU Boulder | |
| **Master** student, Kirk Long, semester advisor, CU Boulder, | Jan 2021 – May 2021 |
| *Now*: PhD student with Jason Dexter, CU Boulder | |
| **Undergraduate** NSF REU student, Vincent Ledvina, NSO, REU advisor | 2019 – 2023 |
| *Now:* NASA FINESST/NSF GFRP graduate student at Univ. of Alaska | |

## APPOINTMENTS AND ELECTED POSITIONS

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|---|---|
| ***Chair***: SHINE steering committee | Aug 2024 – Present |
| *Member*: Solar Helio. & Interplan. Env. (SHINE) Steering Committee | Jan 2023 – Present |
| ***Chair***: Solar Physics Division Metcalf Award Committee / raised 175,000$ | Jan 2020 – Present |
| *Board Member*: Research & Innovation Office Faculty Fellow, CU Boulder | Sep 2021 – Present |
| ***Chair***: Solar Physics Division Nomination Committee | Jan 2020 – 2023 |
| *Member:* Solar Physics Division Steering Committee | Jan 2018 – Dec 2020 |
| *Fellow*: Research & Innovation Office Faculty Fellow, CU Boulder | Nov 2019 – May 2021 |
| *Member:* DKI Solar Telescope science working group | Jun 2018 – Present |

## PROFESSIONAL SERVICE

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| *Journal Referee:* | Nature Communications, Nature Astronomy, The Astrophysical J., The Astrophysical. J. Letters, Astronomy & Astrophysical J. Letters, Astrophysics & Space Science, Solar Physics J., Frontiers in Phys. & Astr. |
| *Grant Referee:* | Mail-in and Panel reviewer for NSF & NASA grant opportunities including NASA NPP, NSF CAREER, NASA HSR etc.; Reviewer for Leibniz Collaborative Excellence Funding Program; NCAR; Hale Fellowship. |

*Observational Proposals:* DKIST review panels.

## RECENT CONFERENCES & SESSIONS ORGANIZATION

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|---|---|
| *Session,* American Geophysical Union Meeting, San Francisco, USA | Dec 2024 |
| *Two sessions,* SHINE meeting, Alaska, USA | Aug 2024 |
| *SOC,* Eclipse 2024 Joint Solar Orbiter, Parker Solar Probe and DKIST, TX, USA | Apr 2024 |
| *Session,* COSPAR, Athens, Greece | Jul 2022 |
| *Two Sessions,* TESS meeting, Seattle, WA | Aug 2022 |
| *SOC,* Ground Based Observation Decadal Survey Meeting, online | Feb 2022 |
| *Session*, American Geophysical Union Meeting, New Orleans, USA | Dec 2021 |
| *Session*, Solar Dynamics Observatory Meeting, online | Mar 2021 |
| *Session,* COSPAR, Sydney, Australia | Jan 2021 |
| *SOC*, Solar Physics Division Meeting, Minneapolis, MN | Aug 2020 |
| *Session,* Solar Heliospheric & Interplanetary Environment Meeting, CO | Aug 2019 |
| *SOC*, 1st Data-Driving Workshop, Boulder, CO | Aug 2018 |
| *Sessions*, Solar Heliospheric & Interplanetary Environment Meeting, FL | Jul 2018 |

## RECENT INVITED TALKS

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| ISSI Meeting on Flare Fine Structure, Bern, Switzerland | May 2026 |
| Aditya/IRIS/Solar Orbiter Meeting, Germany | Mar 2026 |
| Colloquium, Univ. of Minnesota, MN | Dec 2025 |
| IRIS/MUSE Meeting, Lockheed Martin, CA | Oct 2025 |
| Colloquium, Univ. of Colorado -- Boulder, CO | Sep 2025 |
| Plasma Physics Meeting, Japan, *could not attend* | Sep 2025 |
| 125 years of the Kodaikanal Solar Observatory, Bangalore, India | Jan 2025 |
| European Space Weather Week Meeting, Coimbra, Portugal | Nov 2024 |
| Space Weather Seminar Series, NJIT, USA | Oct 2024 |
| May 2024 Solar & Geospace Superstorm Workshop, APL, USA | October 2024 |
| SHINE meeting, Juneau, AK, USA | Aug 2024 |
| Hinode/IRIS/SPHERE meeting, Bozeman, MT, USA | Jul 2024 |
| COSPAR meeting, Busan, Korea, *declined* | Jul 2024 |
| National Solar Observatory, seminar, CO, USA | Apr 2024 |
| Colloquium, Instituto de Astrofisica de Andalucia, Spain | Mar 2024 |
| NSF ECLIPSE meeting, Rochester, USA, *declined* | Mar 2024 |
| Colloquium, University College London, UK | Jan 2024 |
| Solar Focus Meeting, NSO, CO, USA | Nov 2023 |

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| Four Corners APS meeting, UT, USA | Oct 2023 |
| ISSI working group meeting, Nagoya, Japan | May 2023 |
| SOLARNET conference, Potsdam, Germany | May 2023 |
| COFFIES Drive Center, *online*, *Stanford University, USA* | Sep 2022 |
| Colorado Plasma Physics Meeting, CO, USA | Aug 2022 |
| SHINE Meeting, *Plenary Speaker,* HI, USA | Jun 2022 |
| ISSI Meeting on Data-driven simulations, Bern, Switzerland | Apr 2022 |
| NSF ECLIPSE Meeting, speaker, Alexandria, VA, USA | Mar 2022 |
| Colloquium for Solar Flare Energy Release DRIVE center, *online* | Jan 2022 |
| American Physical Society Meeting (APS), *online* | Oct 2021 |
| International Association of Geomagnetism and Aeronomy (IAGA) Meeting, India | Aug 2021 |
| Solar Flows Workshop, *online* | Dec 2021 |
| NASA Living With a Star Team Meeting, *online* | Dec 2021 |
| SHINE Meeting, *Plenary Speaker*, *online* | Jul 2021 |
| Solar Dynamics Observatory Meeting, *Plenary speaker*, *online* | Mar 2021 |
| Committee on Space Research (COSPAR) Meeting, *hybrid* / Sydney, Australia | Jan 2021 |
| National Solar Observatory, seminar, CO, USA | Jan 2021 |
| SHINE Meeting, *Plenary Speaker, could not attend*, Hawaii, HI, USA | Aug 2020 |
| COSPAR Meeting, *could not attend / canceled*, Sydney, Australia | Aug 2020 |
| EarthCube Meeting, New Jersey Institute of Technology, NJ, USA | Jan 2020 |
| Plasma Seminar, Physics Department, CU Boulder, CO, USA | Apr 2019 |
| High Altitude Observatory (HAO), Boulder, CO, USA | Jan 2019 |
| Boulder Solar Week Meeting, HAO/NCAR, CO, USA | Mar 2019 |
| NOAA Space Weather Prediction Center, CO, USA | Nov 2018 |
| National Solar Observatory, CO, USA | Nov 2018 |
| Solar Dynamics Observatory Science Meeting, *Plenary Speaker*, Belgium | Nov 2018 |
| Colloquium, Astronomy & Planetary Science Department, CU Boulder, CO, USA | Mar 2017 |
| IAGA Meeting, *could not attend*, Cape Town, South Africa | Aug 2017 |
| NASA/NSF TIM meeting, NASA Ames Research Center, CA, USA | May 2017 |
| New Jersey Institute of Technology & Ioffe Institute, Moscow, Russia | May & Feb 2017 |
| International Space Science Institute (ISSI), Bern, Switzerland | Jan 2017 |

## OUTREACH FOR BROADER AUDIENCES

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|---|---|
| *Presenter*, K-12 schools in Eagle Pass, TX | 2024 |
| *Presenter,* Cultural Conference, Eagle Pass, TX | 2024 |
| *Guest Speaker,* Women's association, ATOC, CU Boulder | 2023 |
| *Advisor*, undergrad Veronica Estrada, recipient of SACNAS 2024 travel award, AZ, USA | 2023 |
| *Advisor*, grad student Marcel Corchado, recipient of Beth Brown Award, AAS | 2023 |
| *Guest speaker*, Science of STEM Literacy Conference, Sul Ross State Univ. | 2023 |
| Presenter, K-12 schools in Uvalde, TX | 2023 |

## SELECTED OUTREACH ACTIVITIES

*Lead organizer* of series of eclipse activities in Eagle Pass, TX on US-Mexico Border 2024

Outreach activities for 1000 5th graders in Eagle Pass, TX

Outreach activities for 300 K-1 students in Del Rio, TX

Organized and Led an Eclipse party on the SAC Football Stadium in Eagle Pass, TX

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| *Guest Speaker, Cape Cod Astro Society* | 2023 |
| *Science Editor*, Book on 1916 solar eclipse expedition, in prep, in Russian | 2023 |
| *Organizer*, Led series of annular solar eclipse outreach events in Uvalde, TX | 2023 |
| *Guest Speaker,* Longmont Astronomical society | 2023 |
| *Guest Speaker, Science of STEM Literacy Conference, TX* | 2023 |
| *Guest Speaker,* Denver Astronomical society | 2023 |
| Led Teacher training at SWTJC, TX | 2023 |
| *Member:* CU Science Technology and Astronomy Recruits (CU-STARS) | 2019 – 2021 |
| Solar eclipse observations, virtual event (in Spanish) | 2021 |
| *Guest Speaker,* Scientific Sense Podcast | 2021 |
| *Guest Speaker,* Fiske Planetarium Podcast | 2021 |
| CU Boulder, Physics Department, Public Talk, CO | Jan 2020 |
| Fiske Planetarium Outreach Talk for elementary school kids, CO | Nov 2019 |
| *Guest Speaker,* Gorchakov Memorial School, Russia | Sep 2016 |
| *Guest Speaker,* Google, CA | Jul 2015 |
| *Best Science Blog Prize,* Science & Technology RF | Oct 2013 |
| *Guest Speaker,* Chabot Space and Science Center, CA | May 2013 |
| *Guest Speaker,* Mt. Diablo Astronomical Society, CA | July 2012 |
| *Guest Speaker,* Chabot Space and Science Center, CA | Aug 2012 |

## PH.D. THESIS

Predictions of reconnected flux, energy and helicity in eruptive solar flares, MSU-Bozeman, MT, 2011; PhD Advisors: Richard C. Canfield (principal), Dana W. Longcope & Jiong Qiu.

## RECENT PRESS HIGHLIGHTS

1. Cole Tamburri's (grad student) paper on highest-resolution flare observations with DKIST was mentioned in dozens of national/international news, link, link2, link3, 2025.
2. Rahula Yadav (res. scientist) paper on ribbon blobs observations with ViSP/DKIST was covered by several news agencies including NSO blog.
3. *NSF Discovery Files* Podcast: "Total Solar Eclipse", link, 2024
4. *Washington Post*: "Astronomer explains the magic of a total solar eclipse", link, 2024
5. *Telemundo Noticias*, Telemundo News Program, TV, in Spanish, link, 2024.
6. *2024 NSF Eclipse Livestream*, link, 2024.
7. *Washington Post*: "Total eclipse brings tears, joy to Texas border city", link, 2024
8. *NSF Discovery Files* Podcast: "Solar Weather Astronomy", link, 2024.
9. *The Planetary Society*: "Seizing upon Syzygy", link, 2024.
10. *Colorado Arts and Science Magazine* on Kazachenko 2023 ApJ paper: "The most outstanding solar -flare eruptions are not always the most influential", link, 2023.
11. *Universe Today*: "Solar Physics: Why Study It? What Can it Teach Us about Finding Life Beyond Earth?", link, 2024.
12. *AAS Nova* on Kazachenko 2023 ApJ Paper: "Solar Flares in Focus", link, 2023.

# BIBLIOGRAPHY

## PEER REVIEWED ARTICLES

Number of peer-reviewed publications: **63,** *Kazachenko Solar Magnetism group* authors are underlined. **Google-Scholar** *h-index*: **21**; citations: **1417** (as of November 22, 2025).

1. Tamburri, C., Kowalski, A., Cauzzi, G., Kazachenko, M.D., Tritschler, A., Yadav, R., French, R., Notsu, Y., Reardon, K., and Tristan, I., "Spectroscopic analysis and RHD modeling of the first Ca II H and Hε flare spectra from the DKIST/ViSP", Solar Physics, under review, 11/25.
2. Kazachenko, M.D, Fan, Y., Afanasyev, A.N., "When Magnetic Field Lines Stretch, Snap, and Expand: A New Look at Solar Flares with L-maps", ApJ, under review, arXiv, 11/25.
3. Krivova, N.A., Chatzistergos, T., Kazachenko, M.D., Isik, E., "Empirical flare energy limits for the largest historical sunspots", Phil. Trans. of the Royal Society, under review, 11/2025.
4. French, R.J., Kazachenko M.D., Berghmans, D., D'Huys E., Dominique, M., Patel, R., Talpeanu, Tamburri, C., Yadav, C., "Evolution of Flare Ribbon Bead-like Structures in a Solar Flare", ApJ, under review, 11/2025.
5. Kostic, T., Milic M., Rempel, M., Welsch, B.T., Kazachenko, M.D., Asensio-Ramos, A., Tremblay, B., "Multi-height probing of horizontal flows in solar photosphere", A&A, accepted, 11/2025.
6. Corchado Albelo, M., Kazachenko, M.D., French, R.J., Uritsky, V., Mason, E., Tamburri, C.A., Yadav, R., Lynch, B.J., "Studying the Spatial and Temporal Complexity of Flare Ribbon Fine Structure", ApJ, under review, 11/2025.
7. Cliver, E.G., Kazachenko, M.D., Hudson, H.S., Alberti, T., Laurenza, M., White, S.M., Gallagher, P.T., "Signatures of confined and eruptive solar flares in microwave spectra", ApJ, 11/2025.
8. French, R.J., Tamburri, C.A., Ashfield, W., Kazachenko, M.D., Dominique, M., Corchado Albelo, M., "Dual Origins of Rapid Flare Ribbon Downflows in an X9-class Solar Flare", ApJ, accepted, 11/2025.
9. Rapson, V.A., Pietrow, A., Cumming, R.J., Burns, J., Cotton, A., Jadhav, Y., Kazachenko, M.D., Pietrow, C.A.L., Pietrow, L.M.A., Schatz, D., Severn, E., Srinivasan, S., Thornburgh, W., Warkentin, A., Yasui, H., "Why Every Solar Eclipse Viewing Event Needs a Disco Ball", Communicating Astronomy with the Public Journal, arxiv, 10/2025.
10. Zhu, C.; DeVore, R.C.; Dahlin, J.T.; Qiu J., Kazachenko, M.D., Uritsky V.M., "Genesis of a Confined X6.4 Flare in a Quadrupolar Magnetic Configuration", ApJ, 08/2025.
11. Tamburri, C., Kazachenko, M.D., Cauzzi, G., Kowalski, A. F., French, R.J., Yadav, R., Evans C. L., Notsu, Y., Corchado-Albelo, M., Reardon, K. P., Tritschler, A., "Unveiling Unprecedented Fine Structure in Coronal Flare Loops with the DKIST", ApJ, 08/2025.
12. Yadav, R., Kazachenko, M.D., Cauzzi, G., Tamburri, C., Corchado-Albelo, M., French, R.J., "Multi-line Spectropolarimetric Observation of Flare Ribbon Fine Structures with ViSP/DKIST", ApJ, 08/2025.

13. French, R. J., Kazachenko, M. D., Mihailescu, T., Reeves, K.K., "Spectroscopic Observations of Supra-Arcade Downflows", ApJ, 06/2025.
14. Majury, L., Milligan, R., Butler, E., Greatorex, H., Kazachenko M.D., "Spectral Irradiance Variability in Lyman-Alpha Emission During Solar Flares", Solar Physics, 04/2025.
15. French, R. J., Hayes, L. A., Kazachenko M.D; Reeves, K. K., Shen, C., Lörinčík, J., "X-Ray and Spectral Ultraviolet Observations of Periodic Pulsations in a Solar Flare Fan/Looptop", ApJ, 977, 2, 207, 12/2024.
16. French, R.J.; Hayes, L. A.; Kazachenko, M. D.; Reeves, K. K.; Shen, C.; Lörinčík, J., "X-Ray and Spectral Ultraviolet Observations of Periodic Pulsations in a Solar Flare Fan/Looptop", ApJ, 977, 2, 207, 12/2024.
17. Kazachenko, M.D., Perez-Gallego, J, Miller, J., et al, "Eagle Pass, TX: The First American City on the Path of Totality: Organizing an Eclipse Party in the Stadium", Bulletin of the AAS, 9, 56, 12/2024.
18. French, R.J., Ben, T., Corchado-Allbelo, M., Kazachenko M., Pascual E., Perez-Gallego, J., Williams, J., Getley, G., "Visible Eclipses through Clouds --- a Challenge of Outreach Messaging" Bulletin of the AAS, 9, 56, 12/2024.
19. Fan, Y., Kazachenko, M.D., Afanasyev, A. N., Fisher, G.H., "A data-driven MHD simulation of the 2011-02-15 coronal mass ejection from Active Region NOAA 11158", ApJ, CDS/ADS, 10/2024.
20. Yadav, R., Kazachenko, M.D., Afanasyev, A. N., Cauzzi, G., Reardon, K., "Photospheric Pore Rotation Associated with a C-class Flare from Spectropolarimetric Observations with DKIST", ApJL, CDS/ADS, 09/2024.
21. Kazachenko M.D., Perez-Gallego, J., Miller, J., Vielma F., et al., "Eagle Pass, TX: The First American City on the Path of Totality: Organizing Eclipse Party on the Stadium", Bulletin of the AAS, 09/2024.
22. Corchado-Albelo, M.; Kazachenko, M.D.; Lynch, B.J.; "Inferring Fundamental Properties of the Flare Current Sheet Using Flare Ribbons: Oscillations in the Reconnection Flux Rates", ApJ, CDS/ADS, 04/2024.
23. Tamburri, C.A.; Kazachenko M.D.; Kowalski, A.F., "The relationships among solar flare impulsiveness, energy release, and ribbon development", ApJ, CDS/ADS, 03/2024.
24. Zhu, C.; DeVore, R.C.; Dahlin, J.T.; Qiu J., Kazachenko, M.D., Uritsky V.M., Vandervelde, J.S., "Large-scale Coronal Dimming Foreshadowing Eruption", ApJ, 961 (2), 218, CDS/ADS, 02/2024.
25. Kazachenko, M.D., "A Database of Magnetic and Thermodynamic Properties of Confined And Eruptive Solar Flares", ApJ, 12/2023, CDS/ADS, featured on AAS Nova.
26. Yadav, R.; Kazachenko, M. D.; Afanasyev, A.; de la Cruz Rodríguez, J. ; Leenaarts, J., "Solar Atmospheric Heating Due to Small-scale Events in an Emerging Flux Region", CDS/ADS, ApJ, 08/2023.
27. Afanasyev, A.N.; Fan, Y.; Kazachenko, M.D.; Cheung, M.C.M.,"Hybrid Data-driven Magnetofrictional and Magnetohydrodynamic Simulations of an Eruptive Solar Active Region", CDS/ADS, ApJ, 08/2023.

28. Tilipman, D.; Kazachenko, M.D.; Tremblay, B. ; Milic, I. ; Martinez Pillet, V.; Rempel, M. ``Quantifying Poynting flux in the Quiet Sun Photosphere'', CDS/ADS, ApJ, 07/2023.
29. Yadav, R. & Kazachenko, M., "A Statistical Study of Magnetic Field Changes in the Photosphere During Solar Flares Using High-Cadence Vector Magnetograms and Their Association with Flare ribbons ", CDS/ADS, ApJ, 02/2023.
30. Ledvina, V., et al, "How open data and interdisciplinary collaboration improve our understanding of space weather: A risk and resiliency perspective", Frontiers in Astronomy & SS, 12/2022.
31. Ledvina, V., Kazachenko, M.,Tilipman D. et al., "Quantifying Properties of Photospheric Magnetic Cancellations in the Quiet Sun Internetwork", ApJ, 934, 38, 07/2022.
32. Kazachenko, M.D., Corchado-Albelo, M. A., Tamburri, C.A., Welsch, B.T., "Invited Review: Short-term Variability with the Observations from the Helioseismic and Magnetic Imager (HMI) onboard the Solar Dynamics Observatory (SDO): Insights into Flare Magnetism", SolPhys, 297, 59, 05/2022.
33. Lumme E., Pomoell, J., Price, D.J., Kilpua, E.K.J., Kazachenko, M.D., Fisher, G.H., Welsch, B.T., "Data-driven, time-dependent modeling of pre-eruptive coronal magnetic field configuration at the periphery of NOAA AR 11726", A&A, 02/2022.
34. Kazachenko, M.D.; Lynch, B. J. ; Savcheva, A. ; Sun, X. ; Welsch, B. T., "Toward Improved Understanding of Magnetic Fields Participating in Solar Flares: Statistical Analysis of Magnetic Field within Flare Ribbons", ApJ 02/2022.
35. Lee, J., Sun, X., Kazachenko M.D., "Rapid Evolution of Bald Patches in a Major Solar Eruption", ApJ, 11/2021.
36. Lynch, B. J. ; Palmerio, E. ; DeVore, C. R. ; Kazachenko, M. D. ; Dahlin, J. T. ; Pomoell, J. ; Kilpua, E. K. J., "Modeling a Coronal Mass Ejection from an Extended Filament Channel. I. Eruption and Early Evolution", ApJ, 06/2021.
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## LANGUAGES AND HOBBIES

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|---|---|
| *Languages* | English (fluent), Spanish (fluent), German (intermediate), Russian (native) |
| *Hobbies* | Classical singing, piano, accordion, climbing |