

## PERSONAL INFORMATION

PSC 1248, 4296 Stadium Drive  
University of Maryland  
College Park, 20742 MD

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🌐 [www.astro.umd.edu/~mcrnogor/](http://www.astro.umd.edu/~mcrnogor/)  
🐙 [github.com/mcrnogor](https://github.com/mcrnogor)

Languages: Serbian (native), English (fluent), Italian (intermediate)  
Citizenship: Montenegrin

## EDUCATION

**University of Maryland, College Park** (2019 – ) College Park, MD

- PhD, Astronomy (expected 2023)
- CMNS Dean's Fellowship (2019 – 2020)

**University of Maryland, College Park** (2017 – 2019) College Park, MD

- MSc, Astronomy
- Graduate School Dean's Fellowship (2017 – 2018)
- Master Thesis: *Axion-like Particles and Where to Find Them: Searching for ALP-induced Core-collapse Supernovae with Fermi*. Grade: Excellent/Excellent (written & oral project report)
- Advisers: Dr. Regina Caputo (NASA/GSFC), Dr. Manuel Meyer (Stanford University/KIPAC), Dr. Massimo Ricotti (University of Maryland).
- Coursework: Radiative Processes, Stellar Structure and Evolution, Astronomical Instrumentation and Techniques, Galaxies, Cosmology, Planetary Science, Interstellar Medium and Gas Dynamics, High Energy Astrophysics, Practical Astrostatistics (pass/fail), Computational Astrophysics (audit).

**Middlebury College** (2013 – 2017) Middlebury, VT

- Bachelor of Arts (BA), *Magna Cum Laude*. Major: Physics, *High Honors*. Minor: Mathematics
- GPA: 3.74/4.00. College Scholar (four semesters), Dean's List (two semesters)
- [Davis UWC Scholar](#)

**Li Po Chun United World College** (2011 – 2013) Hong Kong

- Full merit-based scholarship; Bi-lingual International Baccalaureate Diploma

**SMŠ „Ivan Goran Kovačić”** (2009 – 2011) Herceg-Novi, Montenegro

- Distinguished Academic Award for representing school and country on National and International Mathematics Competitions with excellence (2011)

## RESEARCH EXPERIENCE

- Department of Astronomy, University of Maryland College Park, MD  
& NASA Goddard Space Flight Center Greenbelt, MD

Research Assistant to Dr. Regina Caputo (May 2018 – )

*Research interests: high-energy astroparticle physics,  $\gamma$ -ray astronomy, indirect dark-matter searches, transients.*

Member of the Fermi GRB Group and DMNP Group. Fermi-LAT Burst Advocate.

- Department of Physics, Middlebury College Middlebury, VT

Senior Thesis (September 2016 – May 2017)

Adviser: Dr. Eilat Glikman. Grade: A, High Honors

Thesis topic: *Probing into the quasar/galaxy co-evolution using the OSIRIS data.*

- Department of Physics, Middlebury College Middlebury, VT  
Research Assistant to Dr. Noah Graham (June 2016 – August 2016)  
*Computing edge-correction coefficients to the proximity force approximation for the Casimir energy of an oblate spheroid facing a plane.*
- Department of Physics, Middlebury College Middlebury, VT  
Research Assistant to Dr. Eilat Glikman (June 2015 – August 2015)  
*Analyzing new selection criteria for red and obscured quasars in SDSS Stripe 82.*

## WORK EXPERIENCE

- Department of Astronomy, University of Maryland College Park, MD  
Teaching Assistant for Introductory Astronomy (September 2017 – May 2018)  
*Organizing and facilitating discussion sections; grading homework assignments and exams. Topics covered include introductory level discussion of astronomical observations and history of astronomy, the Solar system, stellar evolution, galaxy morphology and evolution, cosmology.*
- Department of Physics, Middlebury College Middlebury, VT  
Astronomy Outreach Event Assistant (September 2015 – May 2017)  
*Conducting observatory events and operating the telescopes at the Mittelman Observatory.*
- Center for Teaching, Learning, and Research, Middlebury College Middlebury, VT  
Tutor for Newtonian Physics and Electricity and Magnetism (February 2014 – May 2017)  
*Running one-on-one tutoring sessions for interested undergraduate students.*
- Department of Physics, Middlebury College Middlebury, VT  
Teaching Assistant for Applied Mathematics to Physical Sciences (February 2016 – May 2016)  
*Grading homework assignments and running group help sessions. Topics covered include complex numbers and functions, sequences and series, ODE's, Fourier analysis, multi-variable calculus, special functions, and vector calculus.*
- Middlebury College Library Middlebury, VT  
ILL General Assistant (February 2015 – February 2017)  
*Processing interlibrary loan materials for delivery to Middlebury patrons.*
- Department of Physics, Middlebury College Middlebury, VT  
Laboratory Teaching Assistant for Newtonian Physics (September 2015 – December 2015)  
*Demonstrating techniques and instruments used in the experiment and assisting students during laboratory periods.*
- Department of Physics, Middlebury College Middlebury, VT  
Teaching Assistant for Electricity and Magnetism (September 2014 – May 2014)  
*Grading homework assignments and running group help sessions at an introductory level.*
- LOGOS English Summer Camp Forlì, Italy  
English Tutor (June 2014 – August 2014)  
*Teaching English language to primary school students, planning and organizing lessons and daily activities.*
- Department of Physics, Middlebury College Middlebury, VT  
Teaching Assistant for Newtonian Physics (January 2014 – May 2014)  
*Grading homework assignments and running help sessions at an introductory level.*

## COMPUTING SKILLS

### Operating Systems

- Mac OS, Unix/Linux, Windows

### Languages and Software

- Highly proficient in MATLAB, Python, XSPEC, *GtBurst*, Wolfram Mathematica, L<sup>A</sup>T<sub>E</sub>X. Proficient in PyRAF, IDL, Adobe Illustrator, TOPCAT, DS9. Beginner in HTML/CSS and C.

ADDITIONAL  
INFORMATION**Publications**

- [A Decade of Gamma-Ray Bursts Observed by Fermi-LAT: The Second GRB Catalog](#), M. Ajello and 123 co-authors, incl. M. Crnogorčević. 2019, ApJ.
- [Luminous WISE-selected Obscured, Unobscured, and Red Quasars in Stripe 82](#), E. Glikman and 13 co-authors incl. M. Crnogorčević. 2018, ApJ.
- [GRB 180718B: Fermi-LAT detection](#), GCN notice, July 2018.
- [GRB 180703B: Fermi-LAT detection](#), GCN notice, July 2018.
- [GRB 180703A: Fermi-LAT detection](#), GCN notice, July 2018.

**Presentations**

- “ALP-induced Core-collapse Supernovae,” oral presentation at *Fermi* Collaboration Meeting, Santa Cruz, CA (September, 2019)
- “Axion-like Particles and Where to Find Them,” oral presentation at *Fermi* Summer School, Lewes, DE (June, 2018)
- “Quasar/Galaxy Co-evolution with OSIRIS,” oral presentation at Undergraduate Spring Research Symposium, Middlebury College (April, 2017)
- “Edge Expansion of Scalar Casimir Energies,” oral presentation at APS Conference for Undergraduate Women in Physics, Harvard University (January, 2017)
- “Edge Expansion of Scalar Casimir Energies,” poster presentation at Undergraduate Summer Research Symposium, Middlebury College (August, 2016)
- “New Selection Criteria for Red and Obscured Quasars in Stripe 82,” poster presentation at APS Conference for Undergraduate Women in Physics, Syracuse University (January, 2016)
- “New Selection Criteria for Red and Obscured Quasars in Stripe 82,” presentation at Keck Northeast Astronomy Consortium Undergraduate Symposium on Research in Astronomy, Williams College (October, 2015)
- “New Selection Criteria for Red and Obscured Quasars in Stripe 82,” Keck Northeast Astronomy Consortium Undergraduate Research in Astronomy Journal (October, 2015)
- “Snake-in-the-grid” mathematics research paper submitted as Extended Essay for the International Baccalaureate Diploma, Li Po Chun United World College (April, 2013)
- “Hilbert’s Theorem 90”, presentation at the IX Conference of Scientific Research Center Petnica, Belgrade (September, 2010)
- “Hilbert’s Theorem 90,” publication in “Petničke sveske,” Belgrade (September, 2010)

**Participations in Camps and Awards**

- Four-time participant of the Mathematics Program at Petnica Scientific Center (2010)
- Member of the Montenegrin National Team and a two-time participant of the Junior Balkan Mathematical Olympiad (JMBO); bronze medal winner (JMBO 2009)
- 2nd prize winner at the Mathematical National Competition of Montenegro for students under 16 years old (2009)

**Outreach**

- [GRAD-MAP](#) member, University of Maryland. (September 2017 – September 2019). Astronomy team co-lead (September 2019 – )
- [BANG!](#) Seminar Organizing Committee coordinator, University of Maryland (June 2019 – )
- [EDI](#) Committee member, University of Maryland. (September 2017 – )
- [AGN](#) mentor to undergraduate students, University of Maryland. (September 2018 – September 2019)
- Women in Physics, luncheon co-founder, Middlebury College (September 2016 – May 2017)
- Space Club member, Middlebury College (September 2015 – May 2017)

- Khan Academy/Wikipedia volunteer translator (English to Serbian), Li Po Chun UWC/Middlebury College (Spring 2010 – Spring 2014)

**Hobbies**

US Masters Swimming member, IM Volleyball player (member of the departmental team *Dirty Snowballs*), spoken-word poetry, creative writing, chess, fencing, getting lost in DC.