Jarred Gershon **Green**

PHD CANDIDATE · VERY-HIGH-ENERGY ASTROPHYSICS

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Education

PhD Candidate at the Max Planck Institute for Physics
Munich, Germany

IN THE GAMMA-RAY ASTROPHYSICS GROUP OF PROF. MASAHIRO TESHIMA — *from Jan. 2022*

- Contribute to the Gravitational Wave followup campaign for the Cherenkov Telescope Array
- Carry out data analysis with the MAGIC and LST telescopes
- Evaluate feasibility of neural networks to improve background discrimination for Cherenkov data analysis pipelines
- Telescope collaborations: Active member in MAGIC since May 2019, and CTA-LST telescope since January 2020

Astromunuds Programme
Innsbruck, Austria

MSC, ASTROPHYSICS — *Sep. 2016 - Sep. 2018*

- Two-year Erasmus+ Erasmus Mundus Joint Masters Degree program in Astronomy and Astrophysics, funded by the European Union.
- First semester at University of Innsbruck, Austria; second semester at University of Rome, Tor Vergata; third semester at University of Göttingen, Germany; fourth semester at the Italian Space Agency in Rome, Italy.
- Thesis defended on September 28, 2018 at the University of Rome Tor Vergata with highest marks and Cum Laude (110/110 with honors).

Skidmore College
Saratoga Springs, New York, USA

B.A., MUSIC — *Sep. 2011 - Sep. 2015*

- Music Major with a focus in composition and conducting, Physics minor.
- Graduated Summa Cum Laude with an overall GPA 3.99, Phi Beta Kappa, Sigma Pi Sigma, Dean's List
- Studied abroad at the University of Bologna and the University of Oxford, Lady Margaret Hall in 2013 and 2014, respectively

Research Experience

Italian Institute of Astrophysics, Observatory of Rome (INAF-OAR)
Rome, Italy

RESEARCH FELLOW — *Jan. 2019 - Jun. 2021*

- A 2.5 year position under the supervision of Dr. Angelo Antonelli and Dr. Antonio Stamerra.
- Reduction and analysis of data from the MAGIC telescopes of transient events and promising dark matter targets.
- Contribute to the development of `astripipe`, a software package for analyzing data from arrays of Cherenkov telescopes.
- Simulate observations of Gamma-Ray Burts with the upcoming ASTRI mini-array observatory.

Italian Space Agency – Space Science Data Center (ASI-SSDC)
Rome, Italy

MASTER'S THESIS — *Mar. 2018 - Sep. 2018*

- A seven-month project under the supervision of and Dr. Saverio Lombardi, in conjunction with the MAGIC collaboration.
- Perform data reduction and analysis of Cherenkov observations of two potential dark matter sources.
- Set upper limits on the thermally-averaged cross section of dark matter

Skidmore College
Saratoga Springs, New York, USA

UNDERGRADUATE RESEARCH — *Sep. 2015 - Aug. 2015*

- A yearlong project under the supervision of Dr. Mary Crone Odekon, in conjunction with the ALFALFA collaboration.
- Study elliptical galaxies in which high levels of neutral hydrogen (HI) are detected and find statistical correlations between HI content and galaxy properties using R

Selected Publications

A search for dark matter in Triangulum II with the MAGIC telescopes
MAGIC Collaboration

PHYSICS OF THE DARK UNIVERSE, VOL. 28, CORRESPONDING AUTHOR — *May 2020*

- arXiv:2003.05260,   NASA ADS,   DOI: 10.1016/j.dark.2020.100529

ASTRI Mini-Array Core Science at the Observatorio del Teide
Vercellone, et al.

JOURNAL OF HIGH ENERGY ASTROPHYSICS, VOLUME 35, P. 1-42. — *Aug. 2022*

- arXiv:2208.03177,   NASA ADS,   DOI: 10.1016/j.jheap.2022.05.005

Searching for very-high-energy electromagnetic counterparts to gravitational-wave events with the Cherenkov Telescope Array
Patricelli, et al.

PROCEEDINGS OF THE 37TH INTERNATIONAL COSMIC RAY CONFERENCE (ICRC 2021) — *Mar. 2022*

- arXiv:2108.00691,   NASA ADS,   DOI: 10.22323/1.395.0998

Telescope Time

2023   **50h - Large Size Telescope**, observing time for an extragalactic source   *La Palma, Spain*

Awards & Prizes

2016   **Consortium Scholarship**, Astromundus Masters Programme (Erasmus+) €49,000   *Innsbruck, Austria*
2018   **Best Poster Prize**, Astromundus Retreat 2018, "Indirect Dark Matter Searches with the MAGIC Telescopes"   *Obergurgl, Austria*

Talks

Mar. 2023   **DPG 2023**, "MAGIC Event Reconstruction with Deep Learning"   *Dresden, Germany*

Observing Experience

Feb. 2023   **Shift Leader, MAGIC Telescopes**, 3-week shift   *La Palma, Spain*
Jun. 2022   **Shift Leader, Large-Size Telescope**, 4-week shift   *La Palma, Spain*
Feb. 2021   **Shift Leader, MAGIC Telescopes**, 3-week shift   *La Palma, Spain*
Dec. 2020   **Deputy Shift Leader, MAGIC Telescopes**, 3-week shift   *La Palma, Spain*
Dec. 2019   **Operator, MAGIC Telescopes**, 4-week shift   *La Palma, Spain*

Professional Training

Oct. 2022   **School for Astroparticle Physics**, Erlangen   *Obertrubach, DE*
Sep. 2022   **Particle Acceleration in Astrophysical Objects**, Observatory of Rome   *Rome, IT*
Sep. 2019   **Deep Learning Workshop**, hosted by INAF   *Sardinia, IT*
Dec. 2017   **Big Data Science in Astroparticle Research Workshop**, RWTH Aachen University SuperC   *Aachen, DE*
Dec. 2017   **Franco-Australian Astrobiology and Exoplanet School and Workshop**, Australian National University   *Canberra, AU*
Dec. 2017   **Extreme Habitable Worlds, 51st ESLAB Symposium**, European Space Research and Technology Centre   *Leiden, NE*

Work Experience

Fidget Branding   *Los Angeles, USA*
DATA SCIENTIST   *Nov 2015 - Aug 2016*
• Collect, organize, analyze, and interpret large sets of consumer data

US State Department   *Milan, IT*
STUDENT AMBASSADOR   *Jun 2015 - Oct 2015*
• Represent the USA at the World's Fair (EXPO) in Milan, Italy

Teaching Experience

Teaching Assistant   *Skidmore College, NY, USA*
INTRODUCTORY PHYSICS   *May 2015 - June 2015*
• Run nightly teaching and review sessions
• Maintain office hours and lab equipment

Skills

Language: English	Fluent
Language: Italian	Fluent
Language: Spanish	Advanced
Language: German	Working Knowledge
Programming	Phython, Node.js, TypeScript, Rust, TensorFlow, PyTorch
DevOps	AWS, Docker, Kubernetes
Back-end	Flask, Django, REST API, SvelteKit
Front-end	Svelte, React, HTML5, CSS