

Fabrizio Melges Ferro
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EDUCATION

The University of Chicago

Bachelor of Science in Physics & Bachelor of Science in Mathematics

Cumulative GPA: 3.27/4.00

Major GPA: 3.50/4.00

Relevant Courses: Experimental Physics, Honors Electricity and Magnetism, Computational Techniques in Astrophysics

Chicago, IL, USA
Expected, June 2025

Colegio Jardim Sao Paulo

Diploma, December 2020

Honors Included: Global e-Competition on Astronomy and Astrophysics Bronze Medal (2020), Latin American Olympiad on Astronomy Gold Medal (2019), Full Scholarship for Outstanding Academic Achievement (2018)

Sao Paulo, SP, Brazil

RESEARCH

Kavli Institute for Cosmological Physics

Undergraduate Research Assistant

- Used computational methods to analyze the Dark Energy Survey (DES) redMaPPer galaxy cluster catalog, together with the Planck-ATCA Co-eval observations and the SPT-SZ cluster map to find the distribution of AGNs in relation to galaxy clusters.

Chicago, IL, USA
June 2023-October 2023

WORK

Gerald Ratner Athletics Center

Lifeguard

- Monitor swimmers, providing rescue and emergency care as needed
- Maintain equipment and facilities, ensuring all lifesaving gear is in excellent condition and accessible.
- Participated in regular in-service training sessions to maintain high standards of readiness and skill among lifeguard team members.

Chicago, IL, USA
October 2024-Present

ACTIVITIES

NOIC

Director of the Astronomy Department

- Created study materials, problem sets, and guides to democratize the opportunity of Brazilian students to participate in international scientific olympiads
- co-founded an online astronomy course for Brazilian high-school students and designed the sections on relativity, stellar physics, and observational astronomy
- co-wrote and edited an astronomy textbook to remedy the lack of affordable study materials available to Brazilian students
- Analyzed applications and directed the recruitment process for new members of the astronomy department

Sao Paulo, SP, Brazil
December 2019-September 2021

Olympic Mentoring Project

Mentor

- Instructed a group of high school students through the Brazilian selective process for the international olympiads of astronomy

Sao Paulo, SP, Brazil
March 2020-May 2021

- Created and taught lectures on major astronomy concepts and techniques
- Encouraged students to pursue STEM-related careers

SKILLS

General: Team Leadership, Problem-Solving, Equipment Maintenance.

Water Rescue: Proficient in Shallow and Deep Water Rescues, Spinal Injury Management, and Victim Extraction.

Computer: Python, Racket

Language: Fluent in Portuguese, Conversant in Spanish

CERTIFICATIONS:

American Red Cross Lifeguarding, CPR/AED for Professional Rescuers, First Aid

INTERESTS

Surfing, Freediving, Weightlifting