

# Olivier Gilbert

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## Education

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- BSc**    **Université Laval**, Physics    Sept 2022 – Present
- **CGPA:** 4.13/4.33
  - Concentration in astrophysics (required 4 specialized elective courses)
- DCS**    **CEGEP de Lévis**, Natural Sciences    Aug 2020 – May 2022
- **R-Score:** 32.901

## Experience

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- Bishop's University**, Research Assistant    Sherbrooke, CA  
Advisor: John J. Ruan    May 2024 – Aug 2024
- Researched morphological link between host galaxies of Quasi-Periodic Eruptions and Tidal Disruption Events.
  - Extracted and analyzed images from wide-field surveys.
  - Calculated morphological parameters of galaxies from lenstronomy model fitting.
  - Used model comparison to determine optimal way to model host galaxies.
  - Performed statistical analysis to compare distributions of galaxies.
  - Wrote a paper as a first-author. (See the "Publications" section below)
- Bishop's University**, Research Assistant    Sherbrooke, CA  
Advisor: John J. Ruan    May 2023 – Aug 2023
- Researched physics of accretion disks of low-brightness active galactic nuclei by studying changing-look quasars and their spectral energy distribution.
  - Analyzed images from the *Hubble Space Telescope* and the *Chandra X-ray Observatory*.
  - Reduced spectral data using IRAF.
  - Modeled quasars using Sérsic ellipse plus point source fitting with PSF convolution.
  - Produced paper-quality figures and tables.
  - Wrote a paper as a first-author. (See the "Publications" section below)
- Université Laval Foundation**, Programmer    Québec, CA  
2022
- Developed and programmed an online generosity calculator [🔗](#) to fit the income of the donors.

## Publications

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- Using Faded Changing-Look Quasars to Unveil the Spectral Energy Distribution Evolution of Low-Luminosity Active Galactic Nuclei**    To be submitted to ApJ
- Gilbert, O.**, Ruan, J. J., Duffy, L., Eracleous, M., Anderson, S. F., Green, P. J., Haggard, D., Plotkin, R. M., Runnoe, J. C., Sobolewska, M.
- Draft version [🔗](#)
- A Host Galaxy Morphology Link Between Quasi-Periodic Eruptions and Tidal Disruption Events**    Submitted to ApJ, Sep 2024
- Gilbert, O.**, Ruan, J. J., Eracleous, M., Haggard, D., Runnoe, J. C.

## Scholarships

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**Undergraduate Student Research Award (USRA)**, National Sciences and Engineering Research Council of Canada (NSERC). \$6000 CAD

May 2024 - Aug 2024

**Undergraduate Student Research Award (USRA)**, National Sciences and Engineering Research Council of Canada (NSERC). \$6000 CAD

May 2023 - Aug 2023

## Presentations

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**American Astronomical Society (AAS) 245th Annual Meeting** iPoster presentation on Quasi-Periodic Eruptions.

Jan 2025

## Skills

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**Python:** numpy, matplotlib, astropy, scipy, lenstronomy, pandas, etc.

**Other languages:** C++, JavaScript, HTML, CSS, C#

**Other tools:** LaTeX, SAO DS9, IRAF, HEASARC, CIAO

## Leadership and Public Outreach

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**Presentation at Local Astronomy Club** Invited presenter for the monthly meeting of a local astronomy club.

Sep 2024

**Basketball:** Captain of an Intramural Team at Université Laval

Sep 2023 - Present

**Volleyball:** Member of an Intramural Team at Université Laval

Sep 2022 - Present

## Media Coverage

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**Astrobites** Who's Home? A Supermassive Black Hole & its Tiny Friends [↗](#)

Dec 2024