

# Stephane Werner

## Education

- 2019-Present **Ph.D. in Physics**, *University of Nottingham*, School of Physics and Astronomy, Thesis title: "Formation and Evolution of Clusters and Protoclusters of Galaxies". Supervised by Dr. Nina Hatch. Expected graduation: February, 2023.
- 2017-2019 **M.Sc. in Astronomy**, *Universidade de São Paulo*, Instituto de Astronomia, Geofísica e Ciências Atmosféricas, Dissertation title: "S-PLUS Galaxy Cluster Catalogue using PzWav". Supervised by Prof. Cláudia Mendes de Oliveira.
- 2012-2017 **B.Sc. in Astronomy**, *Universidade Federal do Rio de Janeiro*, Observatório do Valongo, Emphasis on Astrophysics. Final project title: "Comparing Different Methods to Estimate Galaxy Clusters' Masses." Supervised by Prof. Paulo Lopes.

## Experience

- 2017 **Exchange to University of Florida** | Scientific research about the PzWav cluster finder in collaboration with Dr. Anthony Gonzalez.
- 2015-2017 Comparing Different Methods to Estimate Galaxy Clusters' Masses | Scientific research about methods to recover the masses of galaxy clusters using the Millennium Simulation, supervised by Prof. Paulo Lopes.
- 2015-2016 Internship in Control and Monitoring of Satellites | Star One
- 2015 Mathematics Monitor | Colégio e Curso PH
- 2014-2016 Astronomy Outreach to Children and Adults | Extension Project
- 2013 **Summer Project at California Institute of Technology** | Scientific research about data visualization applied to astronomy under the supervision of Prof. George Djorgovski and Dr. Alberto Krone-Martins
- 2013 Formation of Starburst Galaxies | Scientific research supervised by Prof. Karín Menendez-Delmestre and Prof. Thiago Signorini Gonçalves
- 2012 Young Talents Program for Science | Project that I was selected to participate, in which it was learned about the various areas that make up astronomy

## Awards & Scholarships

- 2019-Present **Vice-Chancellor's Scholarship for Research Excellence**, *University of Nottingham*
- 2018 Certificate of Excellence in Observational Astrophysics, *Universidade de São Paulo*
- 2017-2019 CAPES Scholarship, *Masters in Astronomy*
- 2016-2017 Scientific Initiation funded by CAPES, *Universidade Federal do Rio de Janeiro*
- 2016 Honorable Mention - Astroludic, *Universidade Federal do Rio de Janeiro*
- 2016 **Best Poster at the XL Annual Meeting of the Brazilian Astronomical Society**
- 2015-2016 Internship in Control and Monitoring of Geostationary Satellites, *Star One Company*
- 2015 Honorable Mention - Astroludic: Learning and Playing with Astronomy
- 2014-2015 Scholarship in Astronomy Outreach, *Universidade Federal do Rio de Janeiro*
- 2013 Scientific Initiation Funded by CNPq
- 2013 **Scholarship for Summer Research at California Institute of Technology**
- 2012 **BRAVO Challenge Award**, *Brazilian Virtual Observatory*
- 2012 Scientific Initiation funded by CNPq

## Talks/Presentations

- 2022 **S-PLUS workshop Talk** | S-PLUS DR1 Galaxy Clusters and Groups Catalogue using PzWav
- 2022 **Harvard-Smithsonian CfA Talk** | Satellite Quenching was not Important at  $z \sim 1$ : Most Quenching Happened in the Infall Region

- 2022 **STScI Spring Symposium** | Satellite Quenching was not Important at  $z \sim 1$ : Most Quenching Happened in the Infall Region
- 2022 S-PLUS Environmental Working Group Meeting Talk | S-PLUS DR1 Galaxy Clusters and Groups Catalogue using PzWav
- 2022 **S-PLUS General Meeting Talk** | S-PLUS DR1 Galaxy Clusters and Groups Catalogue using PzWav
- 2021 XXXII Canary Island Winter School Poster | Satellite Quenching was not Important at  $z \sim 1$ : Most Quenching Happened in the Infall Region
- 2021 **EAS Annual Meeting Talk** | Satellite Quenching was not Important at  $z \sim 1$ : Most Quenching Happened in the Infall Region
- 2021 **ESO - Galaxy Cluster Formation II Talk** | Satellite Quenching was not Important at  $z \sim 1$ : Most Quenching Happened in the Infall Region
- 2021 Licentiate Meeting of University of São Paulo Panel | What is the social role of scientists?
- 2021 Licentiate Meeting (Universidade Federal do Rio de Janeiro) Panel | Science Outreach in Times of Scientific Denial
- 2018 IAG Science Day Talk | Finding Galaxy Clusters Using S-PLUS Data
- 2018 **XLII Annual Meeting of the Brazilian Astronomical Society Talk** | AstroTubers: A New Way to Disseminate Science in Brazil
- 2017 Galaxy Groups and Clusters II (La Serena–Chile) Poster | S-PLUS and the Study of the Large Scale Structure in the Nearby Universe
- 2017 7th Week of Academic Integration of UFRJ Talk | Efficiency of Mass Estimation of Galaxies Clusters Based on Galaxies Distribution, *Talk*
- 2016 XL Annual Meeting of the Brazilian Astronomical Society Poster | Efficiency of Mass Estimation of Galaxies Clusters Based on Galaxies Distribution
- 2015 Knowing UFRJ Fair | How the Astronomy Course Works, *Fair*
- 2014 & 2015 National Science and Technology Week Talk | Learning to View the Sky with the Inflatable Planetarium
- 2012 BRAVO Virtual Observatory School Talk | How the availability of SOAR telescope images in Microsoft WorldWide Telescope can help Astronomy

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## Facility Awards as Principal Investigator

- 2019 **SOAR Telescope**  
19 hours.

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## Skills

- Programming **Python, R, L<sup>A</sup>T<sub>E</sub>X, SQL**
- Data analysis **Optical, infrared, photometry, spectroscopy, data reduction, N-body simulations**
- Languages English (fluent), Portuguese (native), Spanish (basic)
- Others **IRAF, TOPCAT, ds9, SExtractor**

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## Outreach and Service

- 2017-Present **Social Media Science Outreach**  
The main goal is to disseminate science, useful information about academic life and also instigate critical thinking. My content is in English and Portuguese. I use Twitter (@stephanevw), in which I am verified by the platform and have more than 100,000 followers. I also use the YouTube platform and my channel is called Stéphane Werner. It has more than 20,000 subscribers.
- 2018-2019 Student Representative | Universidade de São Paulo
- 2012-2017 School Visits with Telescopes and Inflatable Observatory
- 2012-2017 Lessons of Mathematics and Physics | Lessons for school students and private tutoring

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## Scientific Affiliations

- UK** Royal Astronomical Society.
- International** Southern Photometric Local Universe Survey (S-PLUS).

## Publications

### First Author

- 2021 **Satellite quenching was not important at  $z \sim 1$ : most quenching happened in the infall region**, *Werner et al. (2021). MNRAS, 510, 674*, arXiv:2111.14624
- 2022 **S-PLUS Galaxy Clusters and Groups Catalogue using PzWav**, *Werner et al. (2022)*, Accepted by MNRAS, arXiv:2211.04243
- 2022 **Intracluster light in the core of  $z \sim 2$  galaxy proto-clusters**, Submitted to MNRAS., Paper link.

### Co-authored

- 2019 **Assessing the photometric redshift precision of the S-PLUS survey: the Stripe-82 as a test-case**, *Molino et al. (2019). MNRAS, 499, 3884*, arXiv:1907.06315
- 2019 **The Southern Photometric Local Universe Survey (S-PLUS): improved SEDs, morphologies and redshifts with 12 optical filters**, *C. Mendes de Oliveira et al. (2019). MNRAS, 489, 241*, arXiv:1907.01567

### Proceeding

- 2021 **Satellite quenching was not important at  $z \sim 1$ : most quenching happened in the infall region**, *Werner et al.*, ESO Galaxy Cluster Formation II (GCF 2021) - Virtual Workshop Proceedings, DOI: 10.5281/zenodo.4974454