

Amedeo Romagnolo

Curriculum Vitae

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DOB: 14th of April, 1994

Education

- 2020 **PhD**, *Nicolaus Copernicus Astronomical Centre, Polish Academy of Sciences, Warsaw, Poland.*
- 2017–2019 **Master degree in Space Sciences**, *Department of Astrophysics, Geophysics and Oceanography, University of Liège, Belgium.*
- 2013–2017 **Bachelor degree in Physics**, *Department of Physics, University of Torino, Turin, Italy.*

Master Thesis

- Title *Scientific support for future space missions and multimethodological analysis of surface properties of solar system bodies*
- Supervisors Doctor Ozgur Karatekin, Professor Benoît Hubert & Professor Denis Grodent

Bachelor Thesis

- Title *A study about the retrieval of the ozone column density by means of the measurement of the UV radiation scattered at the zenith, which took place at the Regional Environmental Protection Agency of Aosta Valley*
- Supervisors Doctor Henri Diémoz & Professor Claudio Cassardo

Research Experience

PhD Student

- Oct 2020 **Nicolaus Copernicus Astronomical Centre, Polish Academy of Sciences**
Present

- Stellar and binary evolution
- Physics of gravitational waves sources
- Black holes and neutron stars formation
- StarTrack and Modules for Experiments in Stellar Astrophysics (MESA)

Research Assistant

- Oct 2019 **Max Planck Institute for Extraterrestrial Physics**
Feb 2020

- Reinhard Genzel's department of Infrared Astronomy
- Erasmus Traineeship program
- Virtual toolbox development for interferometric analysis
- Study of the Galactic Center with the ESO VLT/GRAVITY instrument

Graduate Intern

Mar 2019 **Royal Observatory of Belgium**
Sep 2019

- CubeSat trajectory simulations for an ESA feasibility study regarding the analysis of Venus atmosphere
- Spectroscopic analysis of Mars H₂O/CO₂ polar ice and its temporal evolution in the northern hemisphere via CRISM data
- Data analysis software development

Mar 2019 **Royal Belgian Institute for Space Aeronomy**
Sep 2019

- Experimental and model-based characterization of the VIS-NIR spectrometer for the MAJIS/JUICE mission
- Data processing software development
- Spectroscopic data retrieval simulations

Undergraduate Intern

Sep 2016 **Regional Environmental Protection Agency of Aosta Valley**
Dec 2016

- Spectroscopic analysis of regional stratospheric ozone abundances
- Model-based characterization of Brewer Spectrophotometers

High-school Intern

Jun 2012 **University of Torino**
Aug 2012

- Analysis and reconstruction of skeletal finds with a focus on the research of discontinuous genetic traits
- Bio-demographic analysis of the villages and towns of Susa Valley during the 18th century

Workshops and Schools

July 2020 **Summer School on Metamaterials and Nanophotonics**, *ITMO University, Saint Petersburg, Russia.*

Jan 2020 **ExoGRAVITY Exoplanets interferometric research workshop**, *Max Planck Institute for Extraterrestrial Physics, Garching bei München, Germany.*

Apr 2019 **Rosetta science operations scheduling legacy workshop**, *ESA Academy, Transinne, Belgium.*

Mar 2019 **Rencontre Exobiologiques pour Doctorants (RED)**, *Le Teich, France.*

Jan 2018 **TRAPPIST South: transit observations of the exoplanet HATS-18b**, *University of Liège, Belgium.*

Mar 2018 **TRAPPIST North workshop: Study of PY Uma and XY Leo variable stars**, *Oukaimeden Observatory, Morocco.*

Jan – Jun 2018 **CubeSat mission workshop – Thermal Design**, *Liège Space Center (CSL), Belgium.*

Sep 2016 **Brewer operator training school**, *EUBREWNET & WMO GAW, Edinburgh, United Kingdom.*

Major Collaborations

Oct 2020 **Large Interferometer For Exoplanets (LIFE) – Space Mission**
Present



- Project for interferometric observations of rocky exoplanets
- Search for habitable worlds
- Planetary population synthesis

May 2020 **University of Liège**
Present

- Interferometric observations of hot exozodiacal dust
- VLTI PIONIER & VLTI GRAVITY observations

Papers and Posters

- O. Absil, L. Marion, S. Ertel, D. Defrère, G. Kennedy, **A. Romagnolo** et al. (manuscript in prep.) "*A near-infrared interferometric survey of debris-disk stars – VII. The hot/warm dust connection*"
- Caldiero, A., Karatekin, Ö., Imbreckx, A., **Romagnolo, A.**, Temel, O. & Lozano, L. (January 2020) "*Evolution of Mars polar caps extent from CRISM observations*"
- Miriam E. Cisneros-González, David Bolsée, Nuno Pereira, [...], **Amedeo Romagnolo** et al., (September 2019) "*Validation tests of the calibration bench for the characterization of MAJIS/JUICE VIS-NIR detectors*"
- Alfonso Caldiero, Özgür Karatekin, Orkun Temel & **Amedeo Romagnolo** (September 2019) "*Evolution of Mars polar caps extent from CRISM data*"

Technical Skills

Programming PYTHON, C++, JAVA
Software L^AT_EX, MATLAB, MATHEMATICA, MS OFFICE
Scientific DATA ANALYSIS, NUMERICAL MODELLING, MARKOV CHAIN MONTE CARLO

Memberships

May 2019 ***French Astrobiology Society***
Present



Société Française d'Exobiologie

Languages

Italian Mother-language
English C2 (*Cambridge CAE*)
German B1 (*Goethe Institut of Turin and Heidelberger Pädagogium*)
French A2 (*Institut Supérieur de Langues Vivantes of Liège*)

Other Experiences

Apr 2020 ***NEOS Magazine***
Present



Author and vulgarizer for an international Think Magazine in partnership with several institutions and newspapers, like *Il Sole 24 Ore*, the University of Torino and the European Parliament Information Office in Milan.