

Nicola Pietro Gentile Fusillo

Born 7th July, 1988, Italy

CONTACT INFORMATION	Università degli studi di Trieste Via Bazzoni n.2, 34124, Trieste, Italia	<i>Tel:</i> +39(0)3501204479 <i>E-mail:</i> nicolapietro.gentilefusillo@units.int <i>website:</i> https://npgfusillo.github.io/
RESEARCH INTERESTS	Observational astronomy, large-scale identification and characterization of white dwarfs (e.g. magnetism, variability, metal-pollution), planetary remnants, wide-area optical and infrared surveys.	
EDUCATION	University of Warwick , Coventry, United Kingdom PhD, Astrophysics	October, 2011 - September, 2015
	<ul style="list-style-type: none">• Topic: “Stellar and planetary remnants in large area surveys.”• Supervisor: Prof. Boris Gänsicke	
	University of Warwick , Coventry, United Kingdom MPhys. Thesis topic: ”Optical transients in the WASP orphan database”	October, 2007 - June, 2011
HONORS AND AWARDS	Winner of the Rita Levi Montalcini fellowship bando 2020. European Space Agency (ESA) reserach fellowship for the years 2022-2025 European Southern Observatory Fellowship (Garching) for the years 2019-2022	
WORK AND ACADEMIC EXPERIENCE	Ricercatore a tempo determinato tipo B <i>Università degli studi di Trieste, Trieste, Italy</i>	June, 2023 - ongoing
	Research Fellow <i>European Space Agency, Madrid, Spain</i>	October, 2022 - June, 2023
	Research Fellow <i>European Southern Observatory, Garching bei München, Germany</i>	October, 2019 - September, 2022
	Postdoctoral research Assistant <i>University of Warwick, Coventry, UK</i>	August, 2016 - September 2019
	Postdoctoral research Assistant <i>University of Warwick, Coventry, UK</i>	November, 2015 - July, 2016
	PhD Student <i>University of Warwick, Coventry, UK</i>	October, 2011 - September, 2015
	Support astronomer at Isaac Newton Telescope <i>Isaac Newton Group studentship, Santa Cruz de La Palma, Spain</i> Duties involved instrument calibration and maintenance, supervising and instructing visiting astronomers, performing service mode and technical nights observations. Additional ING projects related to improving instrument and software user interface.	September 2013, - September, 2014

Observing programs

PI of two successful HST programs: 26 total awarded orbits

PI of multiple successful VLT programs: total of 75 hours

PI of multiple PATT proposals awarded a total of 27 nights Co-I in proposals awarded over 100 nights at 10m to 2m class telescopes

Observing experience

Over 100 nights of experience as observer and support astronomer at the international observatories of Roque de Los Muchachos (La Palma) and Paranal (Chile) for various types of programs (e.g. optical imaging, slit spectroscopy, high-cadence time-resolved photometry).

Operation Scientist for the Milky Way Mapper survey in SDSS V

My role involve monitoring the survey progress, quality control and mediation between the survey and operation teams.

Member of the WEAVE, 4MOST and SDSS V consortia, and collaborator in DESI

I am involved in the selection of white dwarfs as flux calibrators in WEAVE and DESI and I lead the development of the white dwarf pipeline for 4MOST and SDSS V.

Contributed talks

SDSS V Science collaboration meeting, New York, USA	August, 2023
ESA Sci Science 15th Workshop, Akersloot, Netherlands	December, 2022
White Dwarfs from Physics to Astrophysics, KITP, Isla Vista, USA	November, 2022
22nd European White Dwarf Workshop, Tübingen, Germany	August, 2022
Congresso Nazionale Oggetti Compatti XI, Firenze, Italy	November, 2019
IAU Symposium: White Dwarfs as Probes of Fundamental Physics and Tracers of Planetary, Stellar, and Galactic Evolution; Hilo, USA	October, 2019
Royal Astronomical Society specialist meeting, London, UK	October 2018
ESO Workshop: A Revolution in Stellar Physics with Gaia and Large Surveys, Warsaw, Poland	September, 2018
21th European White Dwarf Workshop, Austin, USA	July, 2018
EWASS 2018, Liverpool, UK	April 2018
Congresso Nazionale Oggetti Compatti X, Padova, Italy	December, 2017
Gaia data workshop, Heidelberg, Germany	November, 2016
20th European White Dwarf Workshop, University of Warwick, UK	August, 2016
19th European White Dwarf Workshop, Montreal, Canada	August, 2014
National Astronomy Meeting, St Andrews, UK	July, 2013
18th European White Dwarf Workshop, Krakow, Poland	August, 2012

Invited talks

Stellar evolution along the HR diagram with Gaia, Naples, Italy	September, 2022
Seminar at Boston University astronomy group, USA	July, 2021
Summer workshop on white dwarfs and related objects, University of Warwick, UK	July, 2021
KITP online conference: White Dwarfs from Physics to Astrophysics	March, 2021
Seminar at OA Trieste	June, 2020

Invited collaboration visits

Universidad Técnica Federico Santa Maria, Valparaiso, Chile	May, 2016
Space Telescope Science Institute, Baltimore, USA	November, 2017

TEACHING AND
STUDENT
SUPERVISION

Lecturer for the course "Introduzione all'astrofisica" **October 2023 - ongoing**
Undergraduate course lecturer at the department of physics at the University of Trieste. 24 h/yr.

Lecturer for the course "Fisica" **October 2023 - ongoing**
Undergraduate course Lecturer at the department of medical science at the University of Trieste.
48 h/yr .

ESO 4th summer research programme- student supervision **July - August 2022**
Supervised a master-level student over a six-weeks programme on cluster identification and characterization of binary systems using ancillary data from Gaia DR3.

ESO 3rd summer research programme- student supervision **July - August 2021**
Supervised a master-level student over a six-weeks programme on identification of peculiar stellar objects in Gaia EDR3.

ESO 2nd summer research programme- student supervision **June - August, 2020**
Supervised a master-level student over a six-weeks programme on the topic of stellar variability in Gaia DR2. The resulting work was included in Gentile Fusillo et al. (2021 MNRAS, 508, 3877), the student Alina Vorontseva co-authored the paper.

Master student co-supervision **January - July, 2016**
Six month co-supervision of master student working on identification of white dwarf triple systems.

Laboratory Demonstrator **October, 2011 - 2013**
Duties included demonstrating undergraduate students through experiments in the teaching labs, marking their work and instructing other demonstrators on the details of the experiments.

ADDITIONAL
ACADEMIC
ACTIVITIES

Main organizer of the 3rd and 4th ESO summer research programme **2020-2022**
Supervising the candidate selection process, multiple logistic and scientific aspects in the organization of the six-week summer programme. The 4th edition in 2022 attracted over 333 applicants from 45 countries.

Member of ELT standard stars working group **2021 - ongoing**
Currently leading the selection and characterization of flux standards for the first generation near-IR ELT instruments.

Mentorship support for one PhD student at ESO **2019 - ongoing**

Astronomy group seminar organizer **2015 - 2019**
I organized weekly seminars for the astronomy group at the university of Warwick. Speakers from other institutions were invited to give a one hour talk followed by an informal coffee-break discussion.

Member of the Local Organizing Committee for the 20th European White Dwarf workshop

Scientific Assistants for different panels during the ESO Observing Programmes Committee Panel meetings

Professional service as peer reviewer for A&A, ApJ and MNRAS and for PATT telescope-time allocation committees. Expert external reviewer for HST Cycle 29 and 30.

OUTREACH

Four lessons lecture series for the outreach organisation "Astronomiamo". **February, 2023**

Guest speaker for the online outreach organisation "Astronomiamo".

May, 2022

Regular organizer and speaker of yearly outreach programs in junior-high and elementary schools in Italy since 2016.

Speaker at AstroZoom Public Introductory Astronomy Webinar Series

November, 2020

Speaker at the EuroScience Open Forum (ESOF 2020) Trieste.

September, 2020

COMPUTER SKILLS

- Languages: Python, Unix shell scripts, SQL querying.
- Specific data reduction: Slit spectroscopy using the starlink packages molly and PAMELA. X-shooter data reduction using REFLEX reduction tools and molecfit.

FIRST AUTHOR PUBLICATIONS

- Gentile Fusillo, N. P. et al. (2021 MNRAS, 508, 3877) *A catalogue of white dwarfs in Gaia EDR3*
- Gentile Fusillo, N. P. et al. (2021 MNRAS, 504, 2707) *White dwarfs with planetary remnants in the era of Gaia I: six emission line systems*
- Gentile Fusillo, N. P. et al. (2020 MNRAS, 491, 3613) *Cool white dwarfs as standards for infrared observations*
- Gentile Fusillo, N. P. et al. (2019 MNRAS, 482, 4570) *A Gaia Data Release 2 catalogue of white dwarfs and a comparison with SDSS*
- Gentile Fusillo, N. P. et al. (2017 MNRAS, 473, 3693) *Can magnetic fields suppress convection in the atmosphere of cool white dwarfs? A case study on WD2105-820*
- Gentile Fusillo, N. P. et al. (2017 MNRAS, 469,621) *A catalogue of white dwarf candidates in VST ATLAS*
- Gentile Fusillo, N. P. et al. (2017 MNRAS, 468,971) *Trace hydrogen in helium atmosphere white dwarfs as a possible signature of water accretion*
- Gentile Fusillo, N. P. et al. (2016 MNRAS, 455,2295) *A search for variable white dwarfs in large area surveys: a pilot study in SDSS Stripe 82*
- Gentile Fusillo, N. P. et al. (2015 MNRAS, 452, 765G) *An independent test of the photometric selection of white dwarf candidates using LAMOST DR3*
- Gentile Fusillo, N. P. et al. (2015 MNRAS, 448, 2260G) *A photometric selection of white dwarf candidates in Sloan Digital Sky Survey Data Release 10*

CO-AUTHORED PUBLICATIONS

full list available at:

<https://ui.adsabs.harvard.edu/public-libraries/qez6nEPqQTG2pkKB3NIzYw>

NASA ADS CITATION METRICS

60 refereed papers, 1421 citations h-index of 28 (data retrieved on 05/10/2023)