

# Nicola Pietro Gentile Fusillo

Born 7th July, 1988, Italy

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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> <a href="https://npgfusillo.github.io/">https://npgfusillo.github.io/</a>
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	<b>University of Warwick</b> , Coventry, United Kingdom PhD, Astrophysics	<b>October, 2011 - September, 2015</b>
	<ul style="list-style-type: none"><li>• Topic: "Stellar and planetary remnants in large area surveys."</li><li>• Supervisor: Prof. Boris Gänsicke</li></ul>	
	<b>University of Warwick</b> , Coventry, United Kingdom MPhys. Thesis topic: "Optical transients in the WASP orphan database"	<b>October, 2007 - June, 2011</b>
HONORS AND AWARDS	Winner of the Rita Levi Montalcini fellowship bando 2020. European Space Agency (ESA) research fellowship for the years 2022-2025 European Southern Observatory Fellowship (Garching) for the years 2019-2022	
WORK AND ACADEMIC EXPERIENCE	<b>Ricercatore a tempo determinato tipo B</b> <i>Università degli studi di Trieste, Trieste, Italy</i>	<b>June, 2023 - ongoing</b>
	<b>Research Fellow</b> <i>European Space Agency, Madrid, Spain</i>	<b>October, 2022 - June, 2023</b>
	<b>Research Fellow</b> <i>European Southern Observatory, Garching bei München, Germany</i>	<b>October, 2019 - September, 2022</b>
	<b>Postdoctoral research Assistant</b> <i>University of Warwick, Coventry, UK</i>	<b>August, 2016 - September 2019</b>
	<b>Postdoctoral research Assistant</b> <i>University of Warwick, Coventry, UK</i>	<b>November, 2015 - July, 2016</b>
	<b>PhD Student</b> <i>University of Warwick, Coventry, UK</i>	<b>October, 2011 - September, 2015</b>
	<b>Support astronomer at Isaac Newton Telescope</b> <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.	<b>September 2013, - September, 2014</b>

### **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.

### **Member of the CUBES science team.**

### **Contributed talks**

Congresso Nazionale Oggetti Compatti XIII, Alghero, Italy	<b>September, 2024</b>
4MOST Science Team meeting 2024, Uppsala, Sweden	<b>February, 2024</b>
CUBES F2F science meeting, Napoli, Italy	<b>January, 2024</b>
SDSS V Science collaboration meeting, New York, USA	<b>August, 2023</b>
ESA Sci Science 15th Workshop, Akersloot, Netherlands	<b>December, 2022</b>
White Dwarfs from Physics to Astrophysics, KITP, Isla Vista, USA	<b>November, 2022</b>
22nd European White Dwarf Workshop, Tübingen, Germany	<b>August, 2022</b>
Congresso Nazionale Oggetti Compatti XI, Firenze, Italy	<b>November, 2019</b>
IAU Symposium: White Dwarfs as Probes of Fundamental Physics and Tracers of Planetary, Stellar, and Galactic Evolution; Hilo, USA	<b>October, 2019</b>
Royal Astronomical Society specialist meeting, London, UK	<b>October 2018</b>
ESO Workshop: A Revolution in Stellar Physics with Gaia and Large Surveys, Warsaw, Poland	<b>September, 2018</b>
21th European White Dwarf Workshop, Austin, USA	<b>July, 2018</b>
EWASS 2018, Liverpool, UK	<b>April 2018</b>
Congresso Nazionale Oggetti Compatti X, Padova, Italy	<b>December, 2017</b>
Gaia data workshop, Heidelberg, Germany	<b>November, 2016</b>
20th European White Dwarf Workshop, University of Warwick, UK	<b>August, 2016</b>
19th European White Dwarf Workshop, Montreal, Canada	<b>August, 2014</b>
National Astronomy Meeting, St Andrews, UK	<b>July, 2013</b>
18th European White Dwarf Workshop, Krakow, Poland	<b>August, 2012</b>

### **Invited talks**

IFPU Focus Week "Galactic Archaeology: reconstructing the history of galaxies", Trieste, Italy  
**October, 2023**

IFPU Focus Week "Galactic Archaeology: reconstructing the history of galaxies", Trieste, Italy  
**October, 2023**

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**

European Southern Observatory, Garching, Germany **Feb, 2024**  
 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 "Processi radiativi"** **October 2024 - ongoing**  
 Master course Lecturer at the department of physics at the University of Trieste. 24 h/yr .

**Lecturer for the course "Introduzione all'astrofisica"** **October 2023 - ongoing**  
 Undergraduate course lecturer at the department of physics at the University of Trieste. 26 h/yr.

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

**Lecturer at the HGSFP summer school** **June 2024**  
 Invited guest lecturer at the "Heidelberg graduate school for physics" summer school. Molveno, Italy

**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

**Member of the Scientific Organizing Committee for the 23rd European White Dwarf workshop - Spain, July 2024**

**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 coffe-break discussion.

**Member of the Local Organizing Committee for the 20th European White Dwarf workshop - England, July 2016**

**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

Volunteer at the Trieste NEXT, Festival della ricerca scientifica. **September, 2024**

Four lessons lecture series for the utreach 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**

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 61 refereed papers, 1710 citations h-index of 31 (data retrieved on 01/10/2024)  
CITATION METRICS