
CONTACT INFORMATION	European Southern Observatories Garching bei München, D-85748, Germany	<i>Tel:</i> +49(0)15758902814 <i>E-mail:</i> ngentile@eso.org <i>website:</i> https://npgfusillo.github.io/
RESEARCH INTERESTS	Observational astronomy, multiple aspects of white dwarfs science (e.g. magnetism, variability, metal-pollution), planetary remnants, large-area optical and infra-red surveys.	
EDUCATION	University of Warwick , Coventry, United Kingdom PhD, Astrophysics <ul style="list-style-type: none">• Topic: “Stellar and planetary remnants in large area surveys.”• Supervisor: Prof. Boris Gänsicke	October, 2011 - September, 2015
	University of Warwick , Coventry, United Kingdom MPhys. Thesis topic: “Optical transients in the WASP orphan database”	October, 2007 - June, 2011
HONORS AND AWARDS	European Southern Observatory Fellowship (Garching) for the years 2019-2022.	
WORK AND ACADEMIC EXPERIENCE	Research Fellow <i>European Southern Observatory, Garching bei München, Germany</i> Large scale identification and characterization of white dwarf using Gaia. Discovery and analysis of planetary remnants around white dwarfs. Selection and characterization of white dwarfs as flux standards for next generation optical and IR survey/instruments. Development of white dwarfs pipeline for 4MOST and SDSS V	October, 2019 - ongoing
	Postdoctoral research Assistant <i>University of Warwick, Coventry, UK</i> Working on several aspects of white dwarf characterization and spectral modeling. Fitting UV, optical, and near infrared spectra and photometry of white dwarfs. White dwarf population studies using Gaia. Development of machine learning algorithm for white dwarf spectra classification.	August, 2016 - September 2019
	Postdoctoral research Assistant <i>University of Warwick, Coventry, UK</i> Working on identification and characterization of planetary debris around white dwarfs. Exploitation of new large area surveys (VST ATLAS, PTF, PanSTARRS) in various areas of white dwarf science.	November, 2015 - July, 2016
	PhD Student <i>University of Warwick, Coventry, UK</i> Development of colour and proper motion based algorithm for selecting high-confidence white dwarf candidates. Large area surveys (e.g. SDSS, LAMOST) data mining for: identification of metal-polluted white dwarfs and multi-epoch photometry variability studies.	October, 2011 - September, 2015
	Support astronomer at Isaac Newton Telescope <i>Isaac Newton Group studentship, Santa Cruz de La Palma, Spain</i>	September 2013, - September, 2014

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.

Observing programs

PI of two successful HST programs: 26 total awarded orbits

PI of multiple successful VLT programs: total of 7 nights

PI of multiple PATT proposals awarded a total of 27 nights

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).

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

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

18th European White Dwarf Workshop, Krakow, Poland	August, 2012
National Astronomy Meeting, St Andrews, UK	July, 2013
19th European White Dwarf Workshop, Montreal, Canada	August, 2014
20th European White Dwarf Workshop, University of Warwick, UK	August, 2016
Gaia data workshop, Heidelberg, Germany	November, 2016
Congresso Nazionale Oggetti Compatti X, Padova, Italy	December, 2017
EWASS 2018, Liverpool, UK	April 2018
21th European White Dwarf Workshop, Austin, USA	July, 2018
ESO Workshop: A Revolution in Stellar Physics with Gaia and Large Surveys, Warsaw, Poland	September, 2018
Royal Astronomical Society specialist meeting	October 2018
IAU Symposium: White Dwarfs as Probes of Fundamental Physics and Tracers of Planetary, Stellar, and Galactic Evolution; Hilo, USA	October, 2019
Congresso Nazionale Oggetti Compatti XI, Firenze, Italy	November, 2019

Invited talks

Seminar OA Trieste	June, 2020
KITP online conference: White Dwarfs from Physics to Astrophysics	March, 2021 Summer
workshop on white dwarfs and related objects, University of Warwick, UK	July, 2021

Invited collaboration visits

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

TEACHING AND STUDENT SUPERVISION

ESO 3rd summer research programme- organiser and student supervision 2020 - 2021

Supervising the candidate selection process, multiple logistic and scientific aspects in the organization of the summer school taking place in July-August 2021. Also supervising a master level student on a six-weeks research project

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.

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 ELT standard stars working group

2021

Currently leading the selection and characterization of flux standards for the first generation near-IR ELT instruments.

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

Professional service as peer reviewer for ApJ and MNRAS and for multiple telescope-time allocation committees.

OUTREACH

Regular organizer and speaker of yearly outreach programs in junior-high and elementary schools in Noci (BA) 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. (2015, MNRAS 448, 2260G) *A photometric selection of white dwarf candidates in Sloan Digital Sky Survey Data Release 10.*
- 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. (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. (2017, MNRAS 468,971) *Trace hydrogen in helium atmosphere white dwarfs as a possible signature of water accretion*
- 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, 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. (2019, MNRAS, 482, 4570) *The Gaia Data Release 2 catalogue of white dwarfs and a comparison with SDSS*
- Gentile Fusillo, N. P. et al. (2020, MNRAS, 491, 3613) *Cool white dwarfs as standards for infrared observations*
- 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. (2021 recently accepted in MNRAS) *A catalogue of white dwarfs in Gaia EDR3*

NASA ADS 49 refereed papers, 910 citations h-index of 21 (data retrieved on 20/09/2021)
CITATION METRICS