

GIOVANNI ALBERTO VERZA

PERSONAL INFORMATION

Date of Birth: September, 7th, 1989
Nationality: Italy
Civil status: Married
Languages: Italian (Native), English
Address: via Euganea 36, 35141, Padova (PD)
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RESEARCH WORK AND EDUCATION

PostDoc INFN sezione di Padova	2022 – now
PhD in Physics Università degli Studi di Padova Thesis defense: 2022-09-02	2018 – 2022
Master in Physics Università degli Studi di Milano	2016 – 2018
Bachelor in Theology Facoltà Teologica dell'Italia Settentrionale	2011 – 2016
Bachelor in Physics Università degli Studi di Milano Bicocca	2008 – 2011

DIGITAL SKILLS

Programming languages: Python, C++, Mathematica
Containerization: Singularity, Docker
Scientific codes: CAMB, CLASS, Pylians, VIDE, CorrFunc, CUTE, PowerI4, various cosmological emulators, etc.
General expertise: Linux system, High Performance Computing, parallel computing, basics of GPU acceleration programming

SCIENTIFIC PRODUCTION

Publications

- **G. Verza**, C. Carbone, A. Renzi, *The halo bias inside cosmic voids*, Accepted for publication in ApJL, [arXiv:2207.04039](https://arxiv.org/abs/2207.04039).
- S. Contarini, **G. Verza**, A. Pisani, N. Hamaus et. al., *Euclid: Cosmological forecasts from the void size function*, A&A forthcoming, [DOI:10.1051/0004-6361/202244095](https://doi.org/10.1051/0004-6361/202244095), [arXiv:2205.11525](https://arxiv.org/abs/2205.11525).
- N. Hamaus, M. Aubert, A. Pisani, S. Contarini, **G. Verza** et. al., *Euclid: Forecasts from redshift-space distortions and the Alcock-Paczinski test with cosmic voids*, A&A 658, A20 (2022), [DOI:10.1051/0004-6361/202142073](https://doi.org/10.1051/0004-6361/202142073), [arXiv:2108.10347](https://arxiv.org/abs/2108.10347).
- **G. Verza**, A. Pisani, C. Carbone, N. Hamaus, L. Guzzo, *The void size function in dynamical dark energy cosmologies*, JCAP12(2019)040, [DOI: 10.1088/1475-7516/2019/12/040](https://doi.org/10.1088/1475-7516/2019/12/040), [arXiv:1906.00409](https://arxiv.org/abs/1906.00409).

Preprints

- M. Bonici, C. Carbone, S. Davini, P. Vielzeuf, L. Paganin, V. F. Cardone, N. Hamaus, A. Pisani, A. Hawken, A. Kovács, A. Caminata, S. di Domizio, M. Pallavicini, G. Testera, S. Tosi, M. Aubert, S. Contarini, **G. Verza**, I. Tutusaus, S. Escoffier, S. Clesse, V. Pettorino, Z. Sakr, D. Sapone, V. Yankelevich, et al., *Euclid: Forecasts from the void-lensing cross-correlation*, [arXiv:2206.14211](https://arxiv.org/abs/2206.14211).

SCIENTIFIC COLLABORATIONS

Euclid Consortium Member

from 2018

Galaxy clustering science working group, Voids work package.

- Co-lead of the Euclid Standard Project *Euclid: Forecasts from redshift-space distortions and the Alcock-Paczynski test with cosmic voids*.

PRESENTATIONS

The halo bias inside cosmic voids

October 2022

GC-SWG voids group (Online)

Cosmology with cosmic void statistics in galaxy surveys

September 2022

PUMA22, Sestri Levante (Italy)

Euclid: Cosmological forecasts from the void size function

May 2022

Euclid Consortium Meeting, Oslo (Norway)

Cosmology with cosmic void statistics

May 2022

Euclid Consortium Meeting, Oslo (Norway)

The Void Size Function in Dynamical Dark Energy Cosmologies

September 2020

Convegno SIF online

The Void Statistics in Dynamical Dark Energy Models

February 2020

3th Meeting Nazionale Collaborazione Euclid, Bologna (Italy)

The Void Size Function in Dynamical Dark Energy Cosmologies

February 2020

Euclid Joint Meeting, Paris (France)

Cosmic voids to probe Dark Energy

April 2019

UniVersum, Milano (Italy)

CONFERENCES AND WORKSHOPS

PUMA22: Probing the Universe with Multimessenger Astrophysics

September 2022

Sestri Levante (Italy)

Euclid Consortium Meeting

May 2022

Oslo (Norway)

Euclid Consortium Meeting

May 2021

Remote form (Lausanne, Swiss)

4th Meeting Nazionale Collaborazione Euclid

February 2021

Remote form

Convegno SIF

September 2020

Remote form

Euclid Consortium Meeting

May 2020

Remote form (Barcellona, Spain)

3rd Meeting Nazionale Collaborazione Euclid

February 2020

Bologna (Italy)

Euclid Joint Meeting

February 2020

Paris (France)

Fundamental Physics with Future CMB Probes

October 2019

SISSA Trieste (Italy)

UniVersum

April 2019

Milano (Italy)

Euclid and Beyond. The Many Faces of Modern Cosmology

February 2019

CNR Roma (Italy)

SCHOOLS

Programming paradigms for GPU devices CINECA remote form (Bologna, Italy)	November 2021
17th advanced school on parallel computing CINECA remote form (Bologna, Italy)	March 2021
Containerization in high performance computing CINECA remote form (Bologna, Italy)	November 2020
Advanced Euclid School: The Science of Future Cosmological Surveys Remote form (Les Houches, France)	June 2020
Astrostatistics school: Bayesian Methods for the Physics Sciences Milano (Italy)	June 2019
Theoretical Aspects of Astroparticle Physics, Cosmology and Gravitation GGI Firenze (Italy)	March 2019
N-body techniques for astrophysics Course of PhD school in Astronomy, Università di Padova (Italy)	October 2018

OUTREACH ACTIVITIES

Conference: Illuminiamo l'Universo Oscuro. Energia e materia oscura, le componenti che determinano l'evoluzione dell'Universo. "Let's light up the Dark Universe. Dark matter and dark energy, the components that drive the evolution of the Universe."	December 2021
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REFERENTS

Carmelita Carbone INAF-IASF, Università degli Studi di Milano	carmelita.carbone@inaf.it
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Sabino Matarrese Università degli Studi di Padova, INFN sezione di Padova	sabino.matarrese@pd.infn.it

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