

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)
E-mail: giovanni.verza@pd.infn.it, giova.verza@gmail.com
ORCID: <https://orcid.org/0000-0002-1886-8348>
Website: <https://giovanni-verza.github.io/>

RESEARCH WORK AND EDUCATION

PostDoc INFN sezione di Padova	2022 – now
PhD in Physics Università degli Studi di Padova	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

- 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

- G. Verza**, C. Carbone, A. Renzi, *The halo bias inside cosmic voids*, [arXiv:2207.04039](https://arxiv.org/abs/2207.04039).
- 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-Paczinski test with cosmic voids*.

PRESENTATIONS

Cosmology with cosmic void statistics in galaxy surveys PUMA22, Sestri Levante (Italy)	September 2022
Euclid: Cosmological forecasts from the void size function Euclid Consortium Meeting, Oslo (Norway)	May 2022
Cosmology with cosmic void statistics Euclid Consortium Meeting, Oslo (Norway)	May 2022
The Void Size Function in Dynamical Dark Energy Cosmologies Convegno SIF online	September 2020
The Void Statistics in Dynamical Dark Energy Models 3 th Meeting Nazionale Collaborazione Euclid, Bologna (Italy)	February 2020
The Void Size Function in Dynamical Dark Energy Cosmologies Euclid Joint Meeting, Paris (France)	February 2020
Cosmic voids to probe Dark Energy UniVersum, Milano (Italy)	April 2019

CONFERENCES AND WORKSHOPS

PUMA22: Probing the Universe with Multimessenger Astrophysics Sestri Levante (Italy)	September 2022
Euclid Consortium Meeting Oslo (Norway)	May 2022
Euclid Consortium Meeting Remote form (Lausanne, Swiss)	May 2021
4th Meeting Nazionale Collaborazione Euclid Remote form	February 2021
Convegno SIF Remote form	September 2020
Euclid Consortium Meeting Remote form (Barcellona, Spain)	May 2020
3rd Meeting Nazionale Collaborazione Euclid Bologna (Italy)	February 2020
Euclid Joint Meeting Paris (France)	February 2020
Fundamental Physics with Future CMB Probes SISSA Trieste (Italy)	October 2019
UniVersum Milano (Italy)	April 2019
Euclid and Beyond. The Many Faces of Modern Cosmology CNR Roma (Italy)	February 2019

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. December 2021
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."

REFERENTS

Carmelita Carbone INAF-IASF, Università degli Studi di Milano	carmelita.carbone@inaf.it
Alice Pisani CCA, Cooper, Princeton	apisani@astro.princeton.edu
Sabino Matarrese Università degli Studi di Padova, INFN sezione di Padova	sabino.matarrese@pd.infn.it

Giovanni Alberto Tessa