# GIACOMO CORDONI

Nationality Italian

Jun 2019

## Personal Info DOB 28 Oct 1994 Homepage www.giacomocordoni.me Email giacomo.cordoni@phd.unipd.it Personal Email gcordoni94@gmail.com Google Scholar Giacomo Cordoni Publications ADS bibliography ORCID Giacomo Cordoni Education 2018– **Astronomy Ph.D.**, University of Padova, Padova, Italy. Ph.D. project: Multiple Stellar Populations in Star Clusters Supervisor: Prof. Antonino P. Milone 2016–2018 Astronomy Master degree, University of Padova, Padova, Italy, final score 110L/110. (21 Jun 2018) Final thesis: Multiple Stellar Populations in Magellanic Cloud Clusters: disentangling between age spread and rotation Supervisor: Prof. Antonino P. Milone, Co-supervisor: Dr. Anna F. Marino http://tesi.cab.unipd.it/61306/ 2013–2016 Physics Bachelor degree, University of Padova, Padova, Italy, final score 97/110. (26 Sep 2016) Final thesis: Giant planet formation with "pebbles" accretion Supervisor: Prof. Francesco Marzari Prizes and awards Jul 2020 Stefano Magini Award for Master thesis in Astrophysics https://www.arcetri.inaf. it/ricerca/premio-stefano-magini Jul 2018 – Fellowship, University of Padova, Padova, Italy. Sep 2018 Project: Multiple Stellar Populations in Magellanic Cloud Clusters Supervisor: Prof. Antonino P. Milone Scientific experience Oct 2019 – Visiting Ph.D. student at the Research School of Astronomy and Astrophysics, Australian Dec 2019 National University, Canberra, AU. Collaboration with Prof. Gary S. Da Costa and Dr. David Yong Jun 2019 Visiting Ph.D. student at the University of Indiana Bloomington, Bloomington, Indiana, US. Collaboration with Prof. Enrico Vesperini Feb 2019 Visiting Ph.D. student at the Max-Planck-Institut für Astronomie, Heidelberg, DE. Collaboration with Dr. Alessandra Mastrobuono-Battisti Oct 2018 - Tutoring activity in Calculus 1, University of Padova, Padova, IT.

Jun 2018 Tutoring activity for the ESTAGE project with the GALFOR group, *University of Padova, Padova, IT.* http://progetti.dfa.unipd.it/GALFOR/outreach.html

#### Conferences and workshops

- 31 Aug 4 The Local Group: Assembly and Evolution, STScI, Baltimore, MD, US. Con-Sep 2020 tributed Talk. https://www.stsci.edu/contents/events/stsci/2020/april/ the-local-group-assembly-and-evolution
  - 26-31 European Week of Astronomy and Space Science, Lyon, FR. **Contributed Talk.** https://eas.unige.ch//EWASS2019/
- 3-7 Jun 2019 Summer School in Statistics for Astronomers XV, University of Pennsyilvania Eberly College of Science, State College, US.
  - 27-31 Star Clusters: from the Milky way to the Early Universe, IAU Symposium, Bologna, IT.
  - May 2019 Poster. http://iausymp351.oas.inaf.it/
  - 8 Jun 2018 International Conference of Young Astrophysicists and Astronomers 2018, Padova, IT.

    Contributed Talk.. https://indico.cern.ch/event/715567/

#### Refereed publications

After 2 years into my Ph.D. I am author of 16 refereed papers, including 4 first-author papers, with almost 200 citations (NASA ADS). Moreover, I am author of other 2 conference proceedings, 1 as first-author.

- **16 Cordoni et al. 2020c**, in press MNRAS, Exploring the Galaxy's halo and very metal-weak thick disk with SkyMapper and Gaia DR2
  - https://ui.adsabs.harvard.edu/abs/2020arXiv201101189C/abstract
- **15 Cordoni et al. 2020b**, ApJ, Gaia and Hubble unveil the kinematics of stellar populations in the Type II globular clusters  $\omega$  Centauri and M 22.
  - https://ui.adsabs.harvard.edu/abs/2020ApJ...898..147C/abstract
- **14 Cordoni et al. 2020a**, ApJ, Three-Component Kinematics of Multiple Stellar Populations in Globular Clusters with Gaia and VLT
  - https://ui.adsabs.harvard.edu/abs/2020ApJ...889...18C/abstract
- **13 Cordoni et al. 2018**, ApJ, Extended Main-sequence Turnoff as a Common Feature of Milky Way Open Clusters
  - https://ui.adsabs.harvard.edu/abs/2018ApJ...869..139C/abstract
- 12 Tailo et al. 2020 MNRAS, Mass loss along the red giant branch in 46 Globular Clusters and their multiple populations
  - https://ui.adsabs.harvard.edu/abs/2020MNRAS.498.5745T/abstract
- 11 Milone et al. 2020 MNRAS, A chromosome map to unveil stellar populations with different magnesium abundances. The case of Omega Centauri
  - https://ui.adsabs.harvard.edu/abs/2020MNRAS.497.3846M/abstract
- **10** Milone et al. 2020 MNRAS, Multiple populations in globular clusters and their parent galaxies
  - https://ui.adsabs.harvard.edu/abs/2020MNRAS.491..515M/abstract
- **9** Milone et al. 2020 MNRAS, The Hubble Space Telescope UV Legacy Survey of Galactic Globular Clusters. XXI. Binaries among multiple stellar populations
  - https://ui.adsabs.harvard.edu/abs/2020MNRAS.492.5457M/abstract

8 Lagioia et al. 2019, AJ, The Role of Cluster Mass in the Multiple Populations of Galactic and Extragalactic Globular Clusters

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https://ui.adsabs.harvard.edu/abs/2019AJ....158..202L/abstract
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7 Marino et al. 2019, ApJ, Chemical abundances along the 1G sequence of the chromosome maps: The Globular Cluster NGC 3201

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https://ui.adsabs.harvard.edu/abs/2019ApJ...887...91M/abstract
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6 Marino et al. 2019, MNRAS, The Hubble Space Telescope UV Legacy Survey of Galactic Globular Clusters. XVIII. A Chemical Tagging of the Multiple Stellar Populations along the chromosome maps

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https://ui.adsabs.harvard.edu/abs/2019MNRAS.487.3815M/abstract
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5 Zennaro et al. 2019, MNRAS, Four stellar populations and extreme helium variation in the massive outer-halo globular cluster NGC 2419

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https://ui.adsabs.harvard.edu/abs/2019MNRAS.487.3239Z/abstract
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4 Tailo et al. 2019, MNRAS, Is helium the key parameter in the extended color spread of the first generation stars in M3?

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https://ui.adsabs.harvard.edu/abs/2019MNRAS.486.5895T/abstract
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**3** Li et al. 2019, ApJ, Extended main-sequence turnoffs in the double cluster h and  $\chi$  Persei: The complex role of stellar rotation

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https://ui.adsabs.harvard.edu/abs/2019ApJ...876...65L/abstract
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2 Tailo et al. 2019, ApJ, Mass loss of different stellar populations in Globular Clusters: the case of M4

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https://ui.adsabs.harvard.edu/abs/2019ApJ...873..123T/abstract
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1 Milone et al. 2018, ApJ, The Hubble Space Telescope UV Legacy Survey of Galactic Globular Clusters. XVI. The helium abundance of multiple populations

http://adsabs.harvard.edu/abs/2018ApJ...869..139C

#### Observing proposals

Principal HST cycle 27, GO 15495, A two orbits proposal to solve the age spread dilemma in young **Investigator** Magellanic Clouds clusters, P.I. Cordoni

http://www.stsci.edu/hst/observing/program-information

### Conference proceedings

2 Cordoni et al. 2019, IAU proceedings, Kinematics of multiple stellar populations in globular clusters with Gaia

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https://ui.adsabs.harvard.edu/abs/2019arXiv190811692C/abstract
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1 Lagioia et al. 2019, IAU proceedings, Helium variations in Galactic and extragalactic Globular Clusters

https://ui.adsabs.harvard.edu/abs/2019arXiv190811702L/abstract

#### Technical Skills

Programming Python (expert), Supermongo (expert), C++ (intermediate), R (beginner), Mathe-MATICA (beginner), MATLAB (beginner)

# **L**anguages

ITALIAN (native speaker), ENGLISH (fluent)