

# Dr. Eleonora Zari

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## Current position

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### Postdoctoral Researcher

*Galaxy and Cosmology department, MPA, Heidelberg, Germany*  
Research on Milky Way structure as traced by young stars.

*2019-present*

## Education

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### PhD in Astronomy

*Leiden Observatory, Leiden, The Netherlands*

*2015-2019*

Thesis: Surveying young stars with *Gaia*: Orion and the solar neighbourhood.

Supervisors: Prof. A. G. A. Brown, Prof. P.T. de Zeeuw.

### Master's degree in Physics

*University of Milan, Milan, Italy*

*2012–2014*

### Bachelor's degree in Physics

*University of Milan, Milan, Italy*

*2008–2012*

## Supervision of students

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### Hossein Hashemi

*Master student, Leiden University*

*Jan 2018 - Jan 2019*

### Tom Sweegers

*Master student, Leiden University*

*Sept 2018 - Sept 2019*

### Domenica Garzon

*Summer intern, MPA*

*June 2021-Sept 2021*

## Service to the community

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### Referee

*for A&A, APJ, MNRAS*

*Since 2017*

### Postdoc representative

*MPA*

*2020-2022*

### Co-organizer

*Gaia group meeting, Leiden, NL*

*2018 - 2019*

### Member of SOC

*Splinter session, CoolStars20, Boston (MA), USA*

*July 2018*

### Co-organizer

*PhD talks, Leiden, NL*

*2017 - 2018*

## Grants, Honors, Awards and Recognitions

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### **LKBF grant**

*to attend the conference CoolStars20, Boston (MA), USA* 2018

### **IAU grant**

*to attend the IAU Symposium 330, Astrometry and Astrophysics in the Gaia Sky*  
*Nice, France* 2017

### **A&A highlighted papers and covers**

*Zari et al., 2017 and Zari et al., 2016* 2016, 2017

## Selected outreach activities

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### **Volunteer**

*UNAWA Discovery Club* Summer 2018  
<http://www.unawe.org/getinvolved/discoveryclub/>

### **Co-organizer**

*Astronomy on Tap Leiden* 2017 - 2018  
<http://astronomyontap.nl/>

## Selected talks:

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I presented my work in international conferences and workshops, giving several talks and poster presentations. In the last two years, I gave the following invited talks and seminars:

### **Mapping young stars in the Milky Way**

*Colloquium, Keele University (UK)* April 2022

### **Mapping young stars in the Milky Way**

*Colloquium, University of Sheffield (UK)* November 2021

### **Mapping young stars in the Milky Way**

*Colloquium, Radboud University (Nijmegen, NL)* September 2021

### **Mapping OBA stars in the Galactic disc**

*Plenary Talk, SDSS-V Collaboration Meeting* August 2021

### **Mapping young stars in the Milky Way**

*Colloquium, University of Vienna (AT)* April 2021

### **Young stellar clusters as seen by Gaia**

*Plenary Talk, CoolStars 20.5, Boston, MA* March 2021

### **Mapping young stars in the Milky Way**

*Colloquium, Turin Observatory (Italy)* December 2020

### **Mapping Hot and Luminous Stars in the Galaxy**

*Colloquium, KU Leuven (BE)* October 2020

### **Mapping Hot and Luminous Stars in the Galaxy**

*Talk, ESO, Garching (DE)* September 2020

## List of publications

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First and second author publications:

- *OB associations*  
Wright, N., J., Goodwin, S., Jeffries, R. D., Kounkel, M., **Zari, E.**, P&P VII
- *Mapping luminous hot stars in the Galaxy*  
**Zari, E.**, Rix, H.-W., Frankel, N., Xiang, M.; Poggio, E. et al., A&A, 650, 112
- *Structure, kinematics, and ages of the young stellar populations in the Orion region*  
**Zari, E.** Brown, A. G. A. de Zeeuw, P. T., A&A, 2019, 628, 123
- *3D mapping of young stars in the solar neighbourhood with Gaia DR2*  
**Zari, E.**, H. Hashemi, A. G. A. Brown, K. Jardine, and P.T. de Zeeuw, A&A, 620, 172
- *Mapping young stellar populations toward Orion with Gaia DR1*  
**Zari, E.**, Brown, A. G. A., de Bruijne, J., Manara, C. F., de Zeeuw, P. T., 2017, A&A, 608, 148
- *Herschel-Planck dust optical depth and column density maps. II. Perseus*  
**Zari, E.**, Lombardi, M., Alves, J., Lada, C.J., Bouy, H., 2016, A&A, 587, 106
- *The Gaia-ESO Survey: a kinematical and dynamical study of four young open clusters*  
Bravi, L., **Zari, E.**, Sacco, G. G., Randich, S., Jeffries, R. D., et al., 2018, A&A, 615, 37

Other contributions:

- *Zeta-Payne: a fully automated spectrum analysis algorithm for the Milky Way Mapper program of the SDSS-V survey*  
Straumit, I., Tkachenko, A., Gebruers, S., et al., (incl. **Zari, E.**), A&A, in press, arXiv:2203.14538
- *A classifier for spurious astrometric solutions in Gaia eDR3*  
Rybizki, J., Green, G. M., Rix, H.-W., and 6 more incl **Zari, E.**, MNRAS, 510, 2597
- *Stellar labels for hot stars from low-resolution spectra - I. the HotPayne method and results for 330,000 stars from LAMOST DR6*  
Xiang, Maosheng; Rix, Hans-Walter; Ting, Yuan-Sen and 9 more incl. **Zari, E.**, accepted, arXiv:2108.02878
- *Galactic spiral structure revealed by Gaia EDR3*  
Poggio, E. Drimmel, R. Cantat-Gaudin, T., et al. (incl. **Zari, E.**), A&A, 651, 104
- *Data-driven Spectroscopic Estimates of Absolute Magnitude, Distance, and Binarity: Method and Catalog of 16,002 O- and B-type Stars from LAMOST*  
Xiang, M., Rix, H.-W., Ting, Y.-S., **Zari, E.** et al., 2021, ApJS, 253, 22
- *Detailed 3D structure of Orion A in dust with Gaia DR2*  
Rezaei Kh., S., Bailer-Jones, C. A. L., Soler, J. D., **Zari, E.**, 2020, A&A, 643, 151
- *X-shooter survey of disk accretion in Upper Scorpius. I. Very high accretion rates at age > 5 Myr*  
Manara, C. F., Natta, A., Rosotti, G. P., et al. (incl. **Zari, E.**, 2020, A&A, 639, 58
- *3D shape of Orion A from Gaia DR2*  
Grossschedl, J. E., Alves, J., Meingast, S., Ackert, C., Ascenso, J., et al. (incl. **Zari, E.**), A&A, 619, 106

- *A Gaia study of the Hyades open cluster*  
Reino, S., de Bruijne, J., **Zari, E.**, d'Antona, F., Ventura, P., 2018, MNRAS, 477, 319
- *The Gaia-ESO Survey: open clusters in Gaia-DR1 . A way forward to stellar age calibration*  
Randich, S., Tognelli, E., Jackson, R., Jeffries, R. D., Degl'Innocenti, S., et al. (incl. **Zari, E.**), 2018, A&A, 612, 99