

Curriculum Vitae Alessandro Spagna

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Education: Doctor in Physics in 1990 and PhD in Physics in 1995 from the University of Torino, Italy.

Position: Senior Researcher (Primo Ricercatore) at the Osservatorio Astrofisico di Torino (INAF-OATo), Italy

Areas of Expertise: astrometry, stellar photometry, stellar surveys, Milky Way and Local Cosmology

Research activities

My main scientific interests are in the field of ground-based and space astrometry, in the construction of wide field surveys for the study of the Galactic stellar populations and the chemo-dynamical evolution of the Milky Way. Guide star catalogs for the operation of the high precision space telescopes.

Project Coordination, Membership

Member of the FAST Consortium of the HIPPARCOS satellite (1989-1996)

Member of the OATo-STScI collaboration for the construction of the Second Guide Star Catalog (GSC-II) (1992-2007)

STScI consultant for the studies of the guide star system of NGST (1999)

Member of the DPAC of the ESA astrometric mission Gaia, since 1997

Coordinator of the OATo team participating in the Gaia ESO Survey (GES), since 2011

Member of the OATo team responsible for the construction of the Input Star Catalogue (ISC) of the guiding system of the Euclid mission

Coordinator of the OATo responsible for the study of the Input Star Catalogue (ISC) of the guiding system of the SPICA mission (2020)

Teaching Assignments

- University of Turin, Graduate Program in Physics. Courses for PhD students:
 - “*Galactic Astronomy with Gaia*”, held by R. Drimmel and A. Spagna (AY 2015/2016)
 - “*Chemo-dynamical evolution of the Milky Way*”, held by A. Spagna (from AY 2017/2018 to AY 2023/2024)
 - “*Chemo-dynamical evolution of the Milky Way*”, held by A. Spagna and P. Re Fiorentin (AY 2024/2025)
- University of Turin, Master program in *Mathematical and physical methods for space sciences and industrial applications*. Lectures on “Guide Star Catalogues” for the course *Gravitational astronomy and metrology* held by M. Crosta, B. Bucciarelli and A. Spagna

- The 6th Bego Rencontre Summer School (ICRANet, Nice, F);
Lecture: P. Re Fiorentin & A. Spagna, *Local cosmology in the Gaia Era* (04/07/2022)
- International Space School of Space Science (ISSS)
“*Space Astrometry for Astrophysics*”, Summer School for PhD students and young researches. Directors: M. Crosta, R. Drimmel, A. Spagna. L’Aquila (Italy), 3-7 June 2019

Publications

76 refereed journal papers and more than 100 other publications (conference proceedings, catalogs, ...)
h-index = 44; m-index=1.3; g-index = 119 ; i10-index = 72

Selected publications

Re Fiorentin, P.; **Spagna, A.**; Lattanzi, M.G.; Cignoni, M.; Vitali, S.
Icarus Revisited: An Ancient, Metal-poor Accreted Stellar Stream in the Disk of the Milky Way
[2024, ApJ, 977, 278](#)

Gaia Collaboration, Vallenari, A., ..., **Spagna, A.**, et al.
Gaia Data Release 3: Summary of the content and survey properties
[2023, A&A, vol. 674, A1](#)

Gaia Collaboration, Recio-Blanco, A., Kordopatis, G., de Laverny, P., Palicio, P. A., Spagna, A., Spina, L., Katz, D., Re Fiorentin, P., Poggio, E., McMillan, P., et al.
Chemical cartography of the Milky Way disc
[2023, A&A, vol. 674, A38](#)

Giammaria, Marco; **Spagna, Alessandro**; Lattanzi, Mario G.; Murante, Giuseppe; Paola, Re Fiorentin; Valentini, Milena
The Formation History of the Milky Way disc with high-resolution cosmological simulations
[2021, MNRAS, vol. 502, p 2251](#)

Fiorentin, Paola Re; **Spagna, Alessandro**; Lattanzi, Mario G.; Cignoni, Michele
Icarus: A Flat and Fast Prograde Stellar Stream in the Milky Way Disk
[2021, ApJ Letter, vol. 907, p. L16](#)

Poggio, E.; Drimmel, R.; Andrae, R.; Bailer-Jones, C. A. L.; Fouesneau, M.; Lattanzi, M. G.; Smart, R. L.; **Spagna, A.**
Evidence of a dynamically evolving Galactic warp
[2020, Nature Astronomy, vol. 4, p. 590](#)

Re Fiorentin, P.; Lattanzi, M.G.; **Spagna, A.**,
Evidence of a large scale positive rotation-metallicity correlation in the Galactic thick disk
[MNRAS Letter, vol. 484, p. 69](#)

Randich, S.; Tognelli, E.; Jackson, R.; Jeffries, R. D.; Degl’Innocenti, S.; Pancino, E.; Re Fiorentin, P.; **Spagna, A.**; Sacco, G.; Bragaglia, A.; Magrini, L.; Prada Moroni, P. G.; Alfaro, E.; Franciosini, E.; Morbidelli, L.; Roccatagliata, V.; Bouy, H.; Bravi, L.; Jiménez-Esteban, F. M.; Jordi, C. Zari, E.; Tautvaišiene, G.; Drazdauskas, A.; Mikolaitis, S.; Gilmore, G.; Feltzing, S.; Vallenari, A.; Bensby, T.; Koposov, S.; Korn, A.;

Lanzafame, A.; Smiljanic, R.; Bayo, A.; Carraro, G.; Costado, M. T.; Heiter, U.; Hourihane, A.; Jofré, P.; Lewis, J.; Monaco, L.; Prisinzano, L.; Sbordone, L.; Sousa, S. G.; Worley, C. C.; Zaggia, S.
The Gaia-ESO Survey: open clusters in Gaia-DR1. A way forward to stellar age calibration
[2018, A&A, vol. 612, A99](#)

Re Fiorentin, P.; Lattanzi, M.G.; **Spagna, A.**; Curir, A.
New Signatures of the Milky Way Formation in the Local Halo and Inner-halo Streamers in the Era of Gaia
[2015, AJ, vol. 150, p. 128](#)

Qi, Zhaoxiang; Yu, Yong; Bucciarelli, Beatrice; Lattanzi, Mario G.; Smart, Richard L.; **Spagna, Alessandro**; McLean, Brian J.; Tang, Zhenghong; Jones, Hugh R. A.; Morbidelli, Roberto; Nicastro, Luciano; Vecchiato, Alberto
Absolute Proper Motions Outside the Plane (APOP - A Step Toward the GSC2.4
[2015, AJ, vol. 150, p. 37](#)

Curir, A.; Serra, A. L.; **Spagna, A.**; Lattanzi, M. G.; Re Fiorentin, P.; Diaferio, A.
The Radial Metallicity Gradients in the Milky Way Thick Disk as Fossil Signatures of a Primordial Chemical Distribution
[2014, ApJ. Letter, vol. 784, p. 24](#)

Kinman, T. D.; Cacciari, C.; Bragaglia, A.; Smart, R.; **Spagna, A.**
The kinematic properties of BHB and RR Lyrae stars towards the Anticentre and the North Galactic Pole: the transition between the inner and the outer halo
[2012, MNRAS, vol. 422, p. 2116](#)

Spagna, A.; Lattanzi, M. G.; Re Fiorentin, P.; Smart, R. L.
Evidence of a thick disk rotation-metallicity correlation
[2010, A&A Letter, vol. 510, p.4](#)

Lasker, B.M.; Lattanzi, M.G.; McLean, B.J.; Bucciarelli, B.; Drimmel, R.; Garcia, J.; Greene, G.; Guglielmetti, F.; Hanley, C.; Hawkins, G.; Laidler, V.G.; Loomis, C.; Meakes, M.; Mignani, R.; Morbidelli, R.; Morrison, J.; Pannunzio, R.; Rosenberg, A. Sarasso, M.; Smart, R.L. **Spagna, A.**; Sturch, C.R.; Volpicelli, A.; White, R.L.; Wolfe, D.; Zacchei, A.
The Second-Generation Guide Star Catalog: Description and Properties
[2008, AJ, vol. 136, p.735](#)

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