CURRICULUM VITAE

NAME, First Name: **CHIAPPINI**, Cristina

Affiliation: Leibniz-Institut für Astrophysik Potsdam (AIP), Germany

Current position: Senior research staff

Professional History:

2011 – present, Astronomer, Milky Way and Local Volume Section, at Leibniz-Institute for Astrophysics Potsdam (AIP), Potsdam, Germany

2010 – 2011 Research Assistant, AIP, Potsdam, Germany

2008 – 2010 *Maitre Assistant*, Geneva Observatory, University of Geneva, Geneva, Switzerland

2005 – 2008 Sabbatical at Geneva Observatory, University of Geneva, Geneva, Switzerland

2003 – 2011 Research Astronomer, Tenured, Trieste Observatory/OAT, INAF, Trieste, Italy

2001 – 2003 Research Astronomer, Trieste Observatory/OAT, INAF, Trieste, Italy

2000 – 2001 Research Fellow, Columbia University, New York, USA

1998 – 2000 PostDoc, Observatorio Nacional, Rio de Janeiro, Brazil

Education:

1998 PhD (Astronomy) – University of Sao Paulo, Brazil and SISSA/Univ. TS, Trieste, Italy

Honors:

1999 PhD prize award, the Latino-American IAU/Unesco (ceremony in Puebla, Mexico)

1999[1] Awarded *Tombaugh Fellowship* (NMSU) and the *Gemini Fellowship* (Steward Observatory).

2000 PhD prize award, the Brazilian Astronomical Society (ceremony in Brazil)

2011 Awarded ~ €1 Million by SNF Boursier Chaired Professorship, UNIGE, Switzerland. Declined upon acceptance for permanent position at AIP Potsdam

2012 Inducted into *AcademiaNet*

2016-2019 Awarded ~ €260 Thousand by DFG Research Grant *Eine Analyse der Fingerabdruecke der Ersten Sterne: Chemische Häufigkeiten in den ältesten Sternen*

2019 – Potsdam PKP18 - Two prizes for conference science and technology[2]

2022 Nominated by the *Jesús Serra Foundation*, whose purpose is to attract visiting researchers of recognized scientific prestige who make short stays at the IAC.

2023 Awarded ~ €1 Million from ATRAE-Spanish program (pending my acceptance).

[1] Declined the Tombaugh and accepted the Gemini. The latter was also declined upon positive outcome in competition for permanent position at INAF Trieste Observatory in 2000.

[2] IAU News 2019 https://www.iau.org/news/announcements/detail/ann19019/?lang

Publication[3] profile and citation statistics:

NASA ADS: h_index = 73, 185+ Refereed Papers, with more than 26 000 citations

Google Scholar:

a) h_index 80, >300 Papers in total , with more than 30 000 citations ;

b) since 2018: h_index = 59, >62 Refereed Papers, with more than 19 000 citations

Sponsored Research and Grants:

- 2016-2019, €260,000, DFG Research Grant *Eine Analyse der Fingerabdruecke der Ersten Sterne: Chemische Häufigkeiten in den ältesten Sternen* **(PI)**
- 2017, €20,000, IAU for IAU Symposium 334 support **(PI)**
- 2017, €20,000, DFG for organizing international conference (IAU Symposium – **PI**)
- 2011, €1 Million, NF Boursier Chaired Professorship, UNIGE, Switzerland. **(PI)** (Declined upon acceptance for permanent position at AIP Potsdam)
- *2010-2012 - EUROCORES-EuroGENESIS - ESF - Nucleosynthesis fingerprints of the First stars - Main PI: M. Asplund (MPA) -* ***P.I.s Geneva****:* ***C. Chiappini*** *and C. Charbonnel* (Became associated partner upon moving to AIP Potsdam)
- 2008-2009, CHF 200,000 - Swiss National Science Foundation - Switzerland. The impact of stellar evolution models in the chemical evolution of galaxies and the origin of chemical elements (CoI, PI. Prof. G. Meynet)
- 2008-2009, €60,000, COFIN/Miur - Italy. Chemical Evolution of the Milky Way and the galaxies of the Local Group (co-I, PI: Prof. F. Matteucci)
- 2007-2008, €100,000, PRIN/INAF - Italy. The Metallicity Evolution Through the Cosmic Ages (Co-I, PI: Dr. R. Maiolino)
- 2005-2007, € 70,000, PRIN/INAF - Italy. A Hierarchical Merging Tale told by Stars (Co-I, PI: Dr. Bellazzini)
- 2003-2004, € 100,000, COFIN/Miur – Italy. Chemical Evolution and the interpretation of abundances in the universe (Co-I; PI: Prof. F. Matteucci)
- 2003 - €200,000, PRIN/INAF - Italy. Blue Compact Galaxies: primordial helium abundance and chemical evolution (co-I, PI: Dr. John Danziger).
- 1997-2001 - 1.4 Million USD, PRONEX/FINEP project - Brazil. Galaxies: Formation, Evolution and Activity (co-I, PI Prof. Viegas)

COST-EU Network grants:

- COST Action CA16117 2017-2020: ChETEC: Chemical Elements as Tracers of the Evolution of the Cosmos – proposal contributor
- COST Action CA18104 2019-2022: MW-Gaia: Revealing the Milky Way with Gaia - proposal contributor
- ERC Funded Asterochronometry (collaborator – in charge of WP on Galactic Archaeology)

[3] https://orcid.org/0000-0003-1269-7282 for full publication list

RESEARCH

Research Interests

My main scientific interests are in the broad field Galactic Archaeology, and specifically:

- Spectroscopic surveys (e.g. 4MOST, APOGEE, SDSSV, RAVE)
- Astrometric survey (Gaia) and spectrophotometric distances
- Ensemble asteroseismology (using CoRoT, Kepler, K2, TESS and in the future PLATO, HAYDN)
- Chemical evolution and chemodynamical models; cosmological simulations with detailed chemistry
- Oldest stellar population tracers and very metal-poor stars in connection to first stars
- Merger history of the Milky Way
- Stellar populations in the Galactic bulge and disks of the Galaxy
- Age of the thick disk and bulge and connection to high-z observations
- Stellar nucleosynthesis and stellar yields

20 most relevant publications[4] reporting key achievements and discovery

1. Discovery of imprints of fast rotating massive stars in the halo and bulge of the MW
   Chiappini et al. 2011, Nature 472, 7344 (cit. 94) – *Press releases*
   Chiappini et al. 2008, A&A Letter, 479, 9 (cit. 80)
   Chiappini et al. 2006, A&A Letter, 449, L27 (cit. 176)
2. Multiple stellar populations in the Galactic bulge and bar chemical characterization
   Queiroz, **Chiappini** et al. 2021 A&A, 656, A156 (cit. 44)
   Barbuy, **Chiappini,** Gehrard 2018 ARAA vol. 56, p.223 (cit. 144)
3. Chrono-chemical-kinematical maps of the MW with Gaia and complementary information
   Queiroz, Anders, **Chiappini** et al. 2023 A&A in press arXiv:2303.09926
   Anders, Khalatyan, Queiroz., **Chiappini,** et al. 2022, A&A, 658, A91 (cit. 61) – *A&A Highlight article*
   Queiroz, Anders, **Chiappini** et al. 2020 A&A, 638, A76 (cit. 101)
   Anders , Khalatyan, **Chiappini** et al. 2019, A&A, 628, A94 (cit. 194) – *ESA Press release*
4. Precise ages from seismology: Age gap between thick and disks, old metal-rich stars as signature of radial migration, Gaia Enceladus ages, discovery of young alpha-rich stars
   Miglio, **Chiappini** et al. 2021, A&A, 645, A85 (Kepler and APOGEE) (cit. 80)
   Montalban, Mackereth, Miglio, Vincenzo, **Chiappini, C** et al. 2021, Nature Astron., vol. 5, p. 640-647 (Kepler and APOGEE) (cit. 54) – *Press Releases*
   Anders, **Chiappini** et al. 2017b, 600, 70 (CoRoT and APOGEE) (cit. 110)
   Chiappini et al. 2015, A&A Letter 576, id.L12 (CoRoT and APOGEE) (cit. 126) – *Press release*
   Miglio, **Chiappini** et al. 2013, MNRAS 429, 423 (CoRoT) (cit. 166) - *Editor Choice, Science*[5]
5. Novel approach to the chemodynamical model of the MW
   Minchev, **Chiappini** & Martig 2013, A&A 558, id. A9 (cit. 365) – *A&A Highlight article*
   Minchev, **Chiappini** & Martig 2014, A&A 572, id. A92 (cit. 205)
6. Novel chemical evolution model (two-infall) and nucleosynthesis constraints to CNO
   Chiappini et al. 2003a, MNRAS 339, 63 (cit. 234)
   Chiappini et al. 2001, ApJ 554, 1044 (cit. 552)
   Chiappini et al. 1997, ApJ 477, 765 (cit. 773)
7. Novel approach using machine-learning for chemical tagging of MW substructures
   Anders, **Chiappini** et al. 2018, A&A 619, id. A125 (cit 54)

[4] My PhD students and junior collaborators are underlined
[5] Science Editor´s choice, February 2013,Vol. 339, Issue 6120, pp. 628.

Observational proposals

As PI:

- **P.I.,** CTIO Proposal to Blanco-RCSP, *The Galactic Bulge Formation: Abundance Gradients and Metallicity Distribution from Planetary Nebulae* (2001 and 2002)
- **P.I.**, ESO-3.6, proposal, *The Galactic Bulge Formation: Abundance Gradients and Metallicity Distribution from Planetary Nebulae* (2002)
- **Co-P.I**., GTO QMOST P106, *4MOST Consortium Survey 3: Milky Way Disk and Bulge Low-Resolution Survey* - 4MIDABLE-LR (2020)

As CoI:

- CoI., Cycle 9, HST, *Environment Pollution: the outow in the Archetypal Galaxy-Quasar Pair NGC3067/3C232*, PI Dr. Max Pettini (Institute of Astronomy - Cambridge - UK)
- CoI., NOAO Proposal to MMT, *The chemical abundance of the ISM at large distances from the center of M81*, PI Dr. Rene Walterbos (NMSU)
- CoI., NTT-SOFI, *Infrared spectroscopy of the inner galactic disk*, PI F. Comeron (ESO).
- CoI., APO-3.5m, *The abundances of outer disk MW planetary nebulae*, PI R. Walterbos (NMSU)
- CoI., Cycle 13, HST, *The Star Formation History and Metallicity Evolution of M33: A Comprehensive Study of Disk Evolution*, PI Dr. Donald R. Garnett (University of Arizona - USA)
- CoI., VLT ESO (P75), *High resolution spectroscopy of newly discovered M supergiants in the inner galactic disk ,* PI Dr. Fernando Comeron (ESO)
- CoI., VLT ESO (P79), *High resolution spectroscopy of newly discovered M supergiants in the inner galactic disk: completing the H-band spectroscopy*, PI Dr. Fernando Comeron (ESO)
- CoI., Spitzer, Cycle 4, *Star Formation in Tidal streams of the M81 group*, PI. Dr. Neff (Nasa Goddard Space Flight Center, USA)
- CoI., 3.5m telescope on Calar Alto, *The chemical evolution of pure disk galaxies* , PI. Dr. Walcher (IAP)
- CoI., X-Shooter (P84A), GTO, *Metal poor stars and the Origin of the First CNO in the Universe*, PI. Prof. Nordstrom (Niels Bohr Institute, Denmark)
- CoI., X-Shooter (P85A), *GTO, Metal poor stars and the Origin of the First CNO in the Universe*, PI. Prof. Nordstrom (Niels Bohr Institute, Denmark)
- CoI., FLAMES/UVES (P85A), *Abundance of red giants in the inner disk of the Galaxy: assembling a homogeneous data set to reliably constrain chemical evolution models*, PI Dr. Ramirez (MPA)
- CoI., ISAAC (P85A), *The mass-metallicity relation at z=5*, PI Dr. Mannucci (Arcetri)
- Co. I. UVES-VLT (P88A), *The oldest globular cluster NGC 6522: looking for evidence for chemical enrichment by massive spinstars or AGB stars*, PI B. Barbuy
- Co.I., *Ancillary Science Proposal for APOGEE, Ages and Compositions for Disk Red Giants*, PI J. Johnson
- Co.I., ESO Public Spectroscopic Surveys, *The Gaia-ESO survey: Galactic Astrophysics via VISTA Imaging, Gaia Astrometry*, and Eso SpectrOscopy, PI G. Gilmore
- Co.I., Astrophysics Research Consortium (AS3), *APOGEE Extensions into AS3*, PI S. Majewski
- Co.I. ESO *Conceptual Design of a MOS instrument/facility* (choosed for Phase A study), 4mMOSST - 4 meter Multi Object Spectroscopic Survey Telescope, PI R. de Jong (AIP)
- Co.I. UVES-VLT(P99), *Towards precise ages for halo metal-poor stars*, PI. Valentini
- Co.I. FLAMES-VLT (P103), *Abundances in the inner bulge globular clusters Palomar 6 and NGC 6355: gravities and ages from K2*, PI. Valentini
- Co.I. UVES-VLT (P105), *The formation history of the Galactic halo*, PI. Valentini
- Co.I UVES-VLT, (P106), *A new metallicity scale for 4MOST Cepheids,* PI Lemasle

- Co.I. UVES-VLT (P106), *Unfolding the history of the Milky Way halo by combining spectroscopy and asteroseismology*, PI. Valentini
- Co.I. K2 Program GO15100, *RAVE and K2: towards precise ages for metal poor stars*, PI. Valentini
- Co.I. K2 Program GO17018, *Towards Precise Ages for Metal Poor Stars*, PI. Valentini
- Co.I. K2 Program GO19018, *Towards Precise Ages for Metal Poor Stars*, PI. Valentini
- Co.I. K2 Program GO11125, *The age of Galactic Bulge/Thick disk field stars in the metal-poor metallicity distribution tail*, PI. Valentini
- Co.I. K2 Program GO11125, *The age of moderately metal-poor stars in Bulge Globular Clusters,* PI. Valentini

Public Releases of data products to the astronomical community:

- Value Added Catalogues in SDSS DR14 and DR17 (CoRot-APOGEE and *StarHorse* products)
- *StarHorse*[6] Release Gaia DR2 complemented with Multi-band Photometry (Anders et al. 2019)
- *StarHorse*[7] Release Gaia DR2 complemented with Photometry and Spectroscopy (Queiroz et al. 2020)
- *StarHorse*[8] Release Gaia EDR3 photometric run 2021 (Anders et al. 2022)
- *StarHorse*[9] Release Gaia DR3 complemented with spectroscopy – including age products (Queiroz et al. 2023)

TEACHING, ADVISING AND MENTORING ACTIVITY

PhD Students and postdocs at AIP & Potsdam University (2011-present):

PhD Students:

- Nepal, Samir, 2022-present, expected graduation 2025
- Queiroz, Anna, 2019 – 2023, expected graduation April, 5th, 2023
- Anders, Friedrich, 2014-2018, Marie Curie and Ramón y Cajal Fellow University Barcelona
- Bauer, Dorothee, 2013-2017, Physics teacher at gymnasium Potsdam
- Co-advisor of Corrado Boeche, Tilmann Piffl and Borja Anguiano (years 2011-2012)

Postdocs: Several at AIP.

Other:

- Four 8th-10th grade school students for 1-2 weeks internship
- 5 junior visitors as part of STSMs COST Actions and other grants (Grisoni, Bossini, Petersen, Casamiquela, Abate - 2016-2023)

International PhD committees:

- PhD external referee, Arthur Alencastro Puls, Australia National University, ANU
- PhD external referee, G. Guiglion, Nice Observatoire
- PhD external referee, A. Choplin, Geneva University
- PhD external referee, L. Casamiquela, UCCB, Barcelona
- PhD external referee, E. Colavitti, University of Trieste

[6] https://data.aip.de/projects/starhorse2019.html
[7] https://data.aip.de/projects/aqueiroz2020.html
[8] https://data.aip.de/projects/starhorse2021.html
[9] https://data.aip.de/projects/aqueiroz2023.html

Invited lecturer in international PhD schools:

- 2023 - IAC winter PhD school on *The intermediate-age and late accretion history of the Milky Way: the chemical and star forming disks*. November 13-15
- 2023 - XXV Special Courses at the Observatorio Nacional, Brazil on *Bulge stellar populations*, November 6-10th
- 2022 - Galaxy Formation, *Severo Ochoa*[10], on MW stellar populations, Granada, 05/22
- 2014 - Ecole *Evry Schatzman* 2014: Asteroseismology and stellar models, Roscoff, France
- 2010 - First Summer School of the Swiss Commission for Astronomy, St Luc, Switzerland
- 2008 - Sino-German Summer School on *Cool Stars and the Early Universe*, Weihai, China.

SERVICE TO THE PROFESSION

Services in National and/or International Committees (most important ones):

- 2023 **ERC Starting Grant Panel deputy-chair**
- 2023-present **HAYDN Bulge WG Co-chair** with D. Kawata (M7 selected by ESA for phase 0)
- 2022-present Invited to participate on **Galactic Science WG of WST project**
- 2023-present Invited member of the Nuclear Astrophysics Thematical Working Group (TWG[11]) of the NuPECC Long Range Plan 2024
- 2022 **ESO OPC deputy chair P110 and P111**
- 2021 **ERC Starting Grant Panel deputy-chair**
- 2021-2022 **ESO-Panel chair P108, P109, P110, P111**
- 2020-present Invited to participate on **Galactic Science WG of Mosaic Team**
- 2020-present SDSS-V Science representative for AIP
- 2018- StarHorse Team (leader)
- 2014-2021 Ombudsman of the Leibniz Institute for Astrophysics - Potsdam
- 2014-present **co-PI of the 4MOST *4MIDABLE-LR* Survey**
- 2014-present Member of the 4MOST Scientific and Technical and Science Board Committees
- 2014-present Member of the 4MOST Scientific Committee Board
- 2018-2020 Member of 4MOST Science Police Board
- 2013-2020 Member of RAVE Core Science Group
- 2013-2023 Member of the SDSS III; SDSS IV Science Collaboration Council
- 2015-2020 **Elected Member of IAU Division H Steering committee**
  - (2015-2017; 2nd term 2018-2020 – Invited to apply)
- 2011-2018 **Chair** of 4MOST Working group on Survey Strategy simulations – Galactic
- 2017 **Chair of the IAU Symposium 334: *Rediscovering our Galaxy***, Potsdam, Germany
- 2017 Invited Member of WG4: Nuclear Astrophysics Chapter, **Long-Range Plan of NuPECC**
- **2017 Member of WG on Perspectives of astrophysics in Germany 2017-2030 – co-Chair of strategy paper on MW & Local Volume - Chiappini** et al. 2017[12]
- 2011-2013 **4MOST Project Scientist** (Galactic and Extra-galactic) up to ESO selection
- 2012-2014 Member of AIP Internal Scientific Committee
- 2012-2013 ESO-Panel member P92, P91

[10] https://www.granadacongresos.com/galevol
[11] https://nupecc.org/?display=lrp2024/twg4
[12] https://denkschrift2017.de/paper/05%20MilkyWay_20170216.pdf /

Reviewer for journals: Nature, ApJ, A&A, MNRASS, AJ, Review of Modern Physics, AN, PASA

Service in scientific evaluation of proposals (for some of these, several times):

- ERC-Synergy Grant;
- ERC-Consolidator Grant;
- ERC-Starting Grant;
- ANR-Agence Nationale de la Recherche FR (and panel member);
- Ministero dell'Istruzione dell'Universita e della Ricerca, IT;
- DFG-Deutsche Forschungsgemainschaft, DE;
- STFC-Science and Technology Facilities Council, UK;
- Leverhulme Trust, UK;
- Humbolt Foundation Forschungsstipendienprogramm, DE;
- TWAS;
- ESF-FWO

White papers - Part of the writing team:

- *Voyage 2050 ESA: Gaia-NIR* (Hobbs et al. 2021, Experimental Astronomy, Volume 51, Issue 3, p.783-843)
- *Voyage 2050 ESA: HAYDN*[13] (Miglio et al. 2021, Experimental Astronomy, Volume 51, Issue 3, p.963-1001)
- *Astro2020 – AAS – USA* co-author on two papers
- 4MOST (5 papers, one 1st author – **Chiappini** et al. 2019 Messenger, vol. 175, p. 30-34)
- *LSST* – unVEil the darknesS of The gAlactic buLgE (VESTALE), ArXiv: 1812.03124[14]
- One chapter of NuPECC LRP 2017 (Chapter 4 on Nuclear Astrophysics)
- Miglio, **Chiappini** et al. 2017 (+100 authors), AN 338, 644 (PLATO as it is: a Galactic Archaeology mission)
- Turon, Primas, Binney, **Chiappini** et al. 2008, ESA/ESO WG4: Galactic Populations, Chemistry and Dynamics[15], (77 pages)
- Turon, Primas, Binney, **Chiappini** et al. 2008, The Messenger, vol 134, p. 46

4MOST Milestone Scientific Documents as first author

- **Chiappini** et al. 2019, The ESO Messenger 175, p. 30
- **Chiappini** et al. 2013, Milestone 2 Final Conceptual Design Scientific Report[16] (74 pages the report and 28 pages Appendix)
- **Chiappini** et al. 2012, Milestone 1 Concept Telescope Selection Scientific Report (60 pages)

Scientific Chair of Symposium/Workshop

- 2024 IAU Symposium on Stellar Populations (submitted), Melendez & Chiappini
- 2017 IAU Symposium 334: *Rediscovering our Galaxy*[2], Potsdam, Germany
- 2015 592.WE-Heraeus: *Reconstructing the Milky Way's History: spectroscopic surveys, asteroseismology and chemodynamical models*, Bad Honnef, Germany
- 2012 Large Area Optical Spectroscopic Surveys: Science with 4MOST, Potsdam, Germany
- 2011 Galactic Archaeology with SEGUE, Potsdam, Germany

[13] https://www.cosmos.esa.int/web/call-for-missions-2021/update-on-the-f2-and-m7-mission-opportunity
[14] Contribution in response of the Call for White Papers on LSST Cadence Optimization.
[15] https://www.eso.org/public/products/reports/report_0009/
[16] Science Report https://cloud.aip.de/index.php/s/wt2Sqgs9njRFm7F and Appendix https://cloud.aip.de/index.php/s/Q8gt2xyFycNXeep

Service as Editor

- **Chiappini** et al. 2018, IAU Symposium 334: Rediscovering our Galaxy, Cambridge University (Scientific Chair)
- **Chiappini** et al. 2016, AN, Vol. 337, Issue 8-9. (Scientific Chair WE-Heraeus-Symposium)
- Stasinska, G. … **Chiappini, C.** … et al. 2012, EAS Publications Series, Vol. 54. Oxygen in the Universe, Edited by G. Stasińska et al. EDP Sciences, 2012 (Book)
- Charbonnel, Tosi, Primas & **Chiappini** 2010, IAU Symposium 128: The Light elements in the Universe, Cambridge University Press

Invited seminars (selected)**:**
Munich Joint Astronomy Colloquium; Basel University; *Heidelberg Joint Astronomical Colloquia*; Meudon Observatory; Nice Observatory; University of Geneva; University of Vienna; University of Besancon; University of Massachussets UMASS; IAS, Paris-Sud., Surrey, Ohio University
(more than 50 seminars along my career)

Scientific Conferences – Most relevant ***invited*** reviews (IR) and talks (IT) in the last 9 years:

- **2023 I**T METALS2023, ESO offices in Vitacura, Santiago, Chile, 11/23
- **2023 IR** A life devoted to stellar populations", Puerto de la Cruz, Spain, 10/23
- **2023 IT** Mike's fest, a conference organized in honor of Mike Rich, Elba, Italy, 09/23.
- **2022 IR** RRLCEP22, La Palma, 09/22
- **2022 IR** Alvio@80, Chania, 09/ 22
- **2022 IT** EAS 2022, Valencia, 06/22
- **2022 IT** MW/Gaia Aarhus, 06/22
- **2022 IT** ESO Bulges 2022, 05/22 (online)
- **2021 IR** XLIV Annual Meeting of the Brazilian Astronomical Society, 09/21 (online)
- **2019 IR** *LARIM 2019*: XVI Latin American Regional IAU Meeting, 11/19.
- **2019 IR** *The Periodic Table Through Space and Time*, St. Petersburg, 09/19
- **2019 IT** CEMP stars as probes of first stars, IMF, and Galactic Assembly, Geneva, 09/19
- **2019 IR** – TASC5/KASC12: *TESS & Kepler Asteroseismology*, 07/19, MIT Campus, USA
- **2019 IR Plenary – European Week of Astronomy EWASS2019**, 06/19, Lyon, FR
- **2019 IT** – 53rd ESLAB Symposium: *The Gaia universe*, 04/19, ESTEC/ESA, Noordwijk, NL
- **2019 IT** – MOSAIC2019: *Science with the ELT MOS*, 03/19, Heidelberg, DE
- **2018 IR** – GBX2018: *The Galactic Bulge at the crossroads*, 12/18, Pucon/ESO, Chile
- 2018 IT - PLATO WEEK 7: *WP12: Stellar Science*, 12/18, IoA, Cambridge, UK
- 2018 IT - The Hubble Pre-Symposium of the WE-Heraeus-Symposium "The Hubble constant controversy: status, implications and solutions", 11/18
- 2018 IT – *Stellar models* - Workshop of University of Liege, 09/18, Liege, BE
- **2018 IR** – **IAU XXXth General Assembly, *Division G*,** 08/18, Vienna, AU
- **2018 IR** – **IAU XXXth General Assembly, *Division H*,** 08/18, Vienna, AU
- **2018 IR** – *The Metal-poor Galaxy Spectroscopy & Astroarchaeology*, 07/18, MPIA, Ringberg, DE
- 2017 IT – *The cosmic feast of the elements*, 10/17, Puebla, Mexico
- **2017 IR** – **GALDARK2017: *Piercing the Galactic Darkness*,** 10/17, MPIA, Heidelberg, DE
- **2017 IR** – Ages^2: *Taking stellar ages to the next power*, 09/17, INFN/STScI, Isola d'Elba, IT
- **2017 IR Plenary – NAM2017: *National Astronomical Meeting RAS***, 07/17, Hull, UK
- **2017 IR** – IWSSL2017: *Int. Workshop on Stellar Spectral Libraries*, 02/17, C. do J., BR
- 2016 IT – GASP2016: Galactic Archaeology & Stellar Physics, 11/16, Camberra, Australia
- 2016 IT – *CoRoT Legacy Day*, 09/17, Observatoire de Paris, Paris, FR
- **2016 IR** – *Industrial Revolution in Galactic Astronomy*, 07/16, Sexten, IT
- 2016 IT– TessASC2/KeplerASC9: *Seismology of the Sun and distant stars*, 06/16, Açores, PT

- **2016 IT** – **NICXIV - Nuclei in the Cosmos*, Plenary*** *10,* 06/16, Niigata, JP
- **2016 IT** – NuPECC Long Range Plan 2016 Town meeting, 02/16, GSI, Darmstadt, Germany
- **2015 IT** – RDS 2015: *Perspectives of Astrophysics in Germany 2015-2030, 12/15, Potsdam, DE*

Invited Discussion Chair:

2022 – Bulges, ESO meeting (panel member)
2018 – GBX2018: *The Galactic Bulge at the crossroads*, 12/18, Pucon/ESO, Chile; (Chair)
2018 - LSST@ Europe3, 06/18, Lyon, France; (co-Chair).
2017 - GALDARK2017: *Piercing the Galactic Darkness*, 10/17, MPIA, Heidelberg, DE.
2017 - IWSSL 2017, Brazil; (co-Chair with C. Leitherer).
2013 - IAUS298 (declined due to conflict with ESO/OPC – Co-chair Binney).

Invited visits (from 2016 only)

2023 – IAC (2.5 months – April-June)
2023 – University of Bologna (one week, February)
2022 – IAC (5 weeks – July-August)
2019 – University of Massachusetts, UMASS Amherst (one week, June)
2017 – University of Sao Paulo, Brazil (2 months)
2016 – ESO Visitor (one month)

Outreach Publications and Press Releases:

Chiappini 2004, *Sky and Telescope*
Chiappini 2001, *American Scientist.*
Invited to write a book for Springer Chiappini & Matteucci (in prep).
Press releases – ESA[17] (2021, 2019) & AIP[18] (2021, 2019, 2015, 2013, 2011)

PREVIOUS AND CURRENT RESEARCH

My broad research interests are in galactic archeology, with a particular focus on the chemical and dynamical evolution of the structural components of the Milky Way (MW) as well as in the very metal-poor environments, the stellar populations of the Galactic bulge, and the MW accretion history. *Recent* (from 2015) key results from my work include: 1) the discovery of the ``young-alpha-rich stars`` (i.e. chemically old stars– where the ratio of alpha-elements-over-iron is overabundant in comparison to the solar ratio), but young according to the precise ages obtained from asteroseismology; 2) the identification of the genuinely-old thick disk with a mean age of 11Gyr using asteroseismology combined with spectroscopy, and of an intrinsic age spread such that 95% of the population was born within ~1.5 Gyr; 3) the development of unsupervised machine learning methods to dissect different stellar populations in the Galaxy disk; 4) the first chemo-dynamical characterization of coexisting different stellar populations in the central regions of the Galaxy (inner disk, bar, thick disk and pressure supported component); 5) the discovery that the chemical dichotomy in the [alpha/Fe]-[Fe/H] plane, a fundamental chemical diagnostic diagram, extends to the innermost regions of our Galaxy, including stars in the Galactic bar. The ultimate goal of my research is that of achieving a holistic understanding of the formation and evolution of our Galaxy, and how it relates to the different phases of chemical enrichment of other galaxies and the Universe.

[17] https://www.esa.int/ESA_Multimedia/Videos/2019/07/Revealing_the_galactic_bar
[18] https://www.aip.de/en/news/exploring-the-history-of-the-early-milky-way-with-sound/
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