

Curriculum Vitæ - Vinicius Moris Placco

last update: April 1, 2024
(click [here](#) for the live version)

Contents

Personal information	2
Employment / Appointments	2
Education	3
Awards	3
Observatory Experience	4
Leadership Roles/Service	4
Operations and Instrument/User Support	4
Observing Experience	5
Research Experience	6
Funding	6
Fellowships	7
Visiting Faculty/Postdoc/Graduate Student	7
Invited / Contributed talks	8
Academic Experience	13
Student/Postdoc supervision	13
Committee Service	14
Thesis Defense Committee	14
Teaching	15
Other relevant information	16
Technical skills	16
Online Resources	16
Professional Affiliations/Service	16
Quantitative Indicators	17
Publication list	17
Refereed articles	17
Proceedings, non-refereed publications and abstracts	29
Telescope time allocations	34
Principal Investigator	34
Co-Investigator	35
Press releases, articles, and media resources	39

Personal information

Full name Vinicius [v-knee-see-uh-s] Moris Placco
Languages Portuguese (native), English (fluent),
Spanish (intermediate), Italian (basic)

Address 950 N. Cherry Ave.
Tucson, AZ 85719, USA
Phone +1 (520) 318-8000 / 318-8566

Website <http://vmplacco.github.io/>
e-mail vinicius.placco@noirlab.edu
vmplacco@gmail.com

Employment / Appointments

2023– Head of the US National Gemini Office
Community Science & Data Center
NSF's National Optical-Infrared Astronomy Research Laboratory

2022– Associate Astronomer
Community Science & Data Center
NSF's National Optical-Infrared Astronomy Research Laboratory

2020–2022 Associate Scientist
Community Science & Data Center
NSF's National Optical-Infrared Astronomy Research Laboratory

2015–2020 Research Assistant Professor
Department of Physics
University of Notre Dame

2018–2020 Faculty Fellow
Liu Institute for Asia and Asian Studies
University of Notre Dame

2014–2015 Science Fellow
Gemini Observatory – Northern Operations Center
Association of Universities for Research in Astronomy

2013–2014 Postdoctoral Fellow
National Optical Astronomy Observatory
Association of Universities for Research in Astronomy

2010–2013 Postdoctoral Fellow
Instituto de Astronomia, Geofísica e Ciências Atmosféricas
Universidade de São Paulo

2010–2011 External Consultant - Data Science and Statistics
Suzuki Veículos do Brasil S/A

2010–2010 Freelance Translator - Astronomy Brasil Magazine
Ediouro Duetto Editorial

Education

- 2007–2010 Doctorate degree in Astronomy
Search for very metal-poor stars based on carbon over-abundance
Instituto de Astronomia, Geofísica e Ciências Atmosféricas
Universidade de São Paulo
- 2005–2007 Master's degree in Astronomy
Abundance patterns among very metal-poor stars in the Galaxy: a statistical approach
Instituto de Astronomia, Geofísica e Ciências Atmosféricas
Universidade de São Paulo
- 2001–2005 Bachelor's degree in Physics (concentration: Astronomy)
Instituto de Física
Universidade de São Paulo

Awards

- 2011 *Featured Astronomy thesis of the year 2010*
Instituto de Astronomia, Geofísica e Ciências Atmosféricas
Universidade de São Paulo
- 2005 *Best Astronomy undergraduate project*
Instituto de Astronomia, Geofísica e Ciências Atmosféricas
Universidade de São Paulo

Observatory Experience

Leadership roles/Service

- 2020–present Hubble Space Telescope External Proposal reviewer
- 2018–present Member of the J-PAS Survey Science Committee ([Javalambre Physics of the Accelerating Universe Survey](#))
- 2018–present Co-coordinator of the Resolved Stellar Population Working Group of the J-PAS Survey
- 2018–present Member of the Maunakea Spectroscopic Explorer (MSE) [Science Team](#)
- 2017–present Co-coordinator of the Stellar Parameters Value-Added Catalog Group of the J-PLUS Survey
- 2017–present Subaru Telescope Proposal reviewer – category group: Normal Stars, Metal-Poor Stars
- 2017–present Member of the S-PLUS Advisory Committee ([Southern Photometric Local Universe Survey](#))
- 2017–present Principal Investigator of the S-PLUS Short Survey
- 2019–2020 Member of the NSF’s NOIR Lab Time Allocation Committee - [Galactic Panel 2](#)
- 2017–2020 US representative for the Gemini Observatory Users Committee
- 2018–2019 Member of the NOAO Time Allocation Committee - [Galactic Panel 2](#)
- 2017–2018 Member of the Gemini OCS Upgrades Working Group
- 2018 US Extremely Large Telescope Program – [First Stars Key Science Project](#)

Operations and Instrument/User Support

- 2020–present **NSF’s NOIRLab**: Community Science & Data Center – US National Gemini Office
 Product development for the Gemini user community:
 [Twitter account bots](#) – [daily completion](#), [weekly paper](#), [monthly completion](#), [other metrics](#)
 [GitHub repositories](#) – [DRAGONS Imaging tutorials](#), [IRAF Spectroscopy tutorials](#), [users dashboard](#)
 Co-organization of AAS Splinter Meetings
 Responsible for managing the [NOIRLab IRAF modernization project](#)
 Migration and maintenance of the [US NGO Portal](#)
 Migration and maintenance of the [GMOS Cookbook](#)
 Migration and maintenance of the [XDGNIRS Pipeline](#)
 Gemini HelpDesk – Responsible for selected Tiers 2 and 3 inquiries
- 2021–present **NSF’s NOIRLab**: Communications, Education & Engagement
 Supported the migration of the NOAO Science website to the new [NOIRLab Science website](#)
 Developed, revised, and curated content for the [NOIRLab Science website](#)
 Serve as a liaison between RSS and CEE
 Support science staff in adding/editing content on the science webpages
 Responding/routing science inquiries from usercomms@noirlab.edu and info@noirlab.edu
 Responsible for the curation of the [NOIRLab Capabilities Brochure](#)
- 2021–2022 **NSF’s NOIRLab**: Gemini Observatory – Science User Support Department
 Part of the Science Verification effort for the DRAGONS spectroscopic routines
 Early testing of the quick-look and interactive tools for DRAGONS
 Performance comparison between Gemini/IRAF and DRAGONS packages
- 2014–2015 **Gemini-North**: Operations
 Support Scientist for Phase II programs
 Backup support for instrument teams
 Interface between observatory and visitors (staff, scientists, and others)
 Interactions with astronomers, engineers, IT personnel, and facilities staff
 Community support (help-desk and troubleshooting)
 Write/edit/update internal and external webpages
 Weekly operations meetings
 Queue observer
 Data reductions

- 2014–2015 **Gemini-North:** GMOS Instrument Team
 Instrument performance monitoring pipeline
[Throughput characterization](#)
 Commissioning of AO capabilities
 Write/edit/update internal and external instrument webpages
 Data quality assessment
 Commissioning of Hamamatsu CCD at GMOS-S
- 2014–2015 **Gemini-North:** GRACES Instrument Team
 Commissioning of the instrument
 Developed early data-reduction pipeline
 Write/edit/update internal and external instrument webpages
 Developed exposure time calculator (GRACES ITC v0.1 Beta)
- 2008–2012 **SOAR Telescope:** remote observing station – University of São Paulo
 Responsible for operations and maintenance
 Develop data reduction tools
 Edit/write manuals and data analysis cookbooks
 User support and troubleshooting
 Configure, quote, and purchase new workstations and teleconference hardware
 Work with staff and IT personel to ensure access to buildings and computers
 Support daytime calibrations / nighttime observations

Observing Experience

Period	Telescope	# of nights	instrument	mode
2019–present	CTIO/Blanco	16	COSMOS	remote
2011–present	ESO/NTT	12	EFOSC2	visitor
2008–present	SOAR	40+	Goodman OSIRIS	remote
2013–2018	KPNO/Mayall	20+	RCSPEC KOSMOS	visitor/remote
2014–2015	Gemini North	12	GMOS GRACES GNIRS NIRI NIFS	queue observer
2014–2015	Gemini South	2	GMOS	remote
2013	McDonald 2.1m	4	ES2 Spectrometer	visitor

Research Experience

Funding

Current

2023–2026 Hubble Space Telescope (Co-I)
Fission of Transuranic Nuclei: A Potential Observational Signature in Metal-Poor Stars
 Space Telescope Science Institute (USD 2,873)

Past (Total: USD 470,229)

2020–2022 Hubble Space Telescope (Co-I)
Testing r-process nucleosynthesis models with two r-process enhanced stars
 Space Telescope Science Institute (USD 35,000)

2019–2021 Hubble Space Telescope (Co-PI)
HD 222925: A unique opportunity to study the full range of nuclei produced by a single r-process event
 Space Telescope Science Institute (USD 60,732)

2018–2020 Hubble Space Telescope (Co-PI)
The Unexplored Domains of the s-Process
 Space Telescope Science Institute (USD 119,104)

2018 Liu Institute for Asia & Asian Studies (PI)
Stellar Archaeology as a Time Machine to the First Stars
 University of Notre Dame (USD 600 - Travel support for conference)

2018 Liu Institute for Asia & Asian Studies (PI)
TDLI Workshop on The Exploding Universe
 University of Notre Dame (USD 2,600 - Travel support for conference)

2015–2017 Hubble Space Telescope (Co-I)
The First Detections of Phosphorus, Sulphur, and Zinc in a Bona-Fide Second-Generation Star
 Space Telescope Science Institute (USD 85,293)

2016–2017 Faculty Research Support Program Initiation Grant (PI)
Identification of CEMP Stars from S-PLUS Photometry using Artificial Neural Networks
 University of Notre Dame (USD 10,000)

2013–2014 FAPESP (State of São Paulo Research Foundation) – Postdoctorate
(re)discovery and analysis of metal-poor stars in the Milky Way
 National Optical Astronomy Observatory (USD 71,400)

2010–2013 FAPESP (State of São Paulo Research Foundation) – Postdoctorate
The Milky Way Halo revisited
 Universidade de São Paulo (USD 85,500)

Fellowships

- 2007–2010 Doctorate – FAPESP (07/04356-3) – Universidade de São Paulo
Search for very metal-poor stars based on carbon over-abundance
- 2005–2007 Master's – FAPESP (05/01023-8) – Universidade de São Paulo
Abundance patterns among very metal-poor stars in the Galaxy: a statistical approach
- 2004–2005 Undergraduate research project – CNPq/PIBIC – Universidade de São Paulo
Descoberta e Análise de Objetos com Linhas em Emissão no Survey HK
- 2002–2004 Undergraduate research project – FAPESP (02/04704-8) – Universidade de São Paulo
Construção de câmara de alvo gasoso para produção de feixes radioativos

Visiting Faculty/Postdoc/Graduate Student

- 2023/2022 Universidade de São Paulo
Instituto de Astronomia, Geofísica e Ciências Atmosféricas
Funding: NOIRLab/USP/FAPESP
- 2020/2018 Universidade de São Paulo
Instituto de Astronomia, Geofísica e Ciências Atmosféricas
Funding: USP/FAPESP/JINA-CEE
- 2018 Chungnam National University
Department of Astronomy & Space Science
Funding: CNU
- 2014 University of Notre Dame
Department of Physics
Funding: Gemini Observatory and JINA (Joint Institute for Nuclear Astrophysics)
- 2014/2012 Massachusetts Institute of Technology
Kavli Institute for Astrophysics and Space Research
Funding: Gemini Observatory, FAPESP (The State of São Paulo Research Foundation – Brazil)
- 2013/2012 National Optical Astronomy Observatory
Kitt Peak National Observatory
Funding: FAPESP (Brazil)
- 2013 New Mexico State University
Department of Astronomy
Funding: FAPESP (Brazil)
- 2010/2008 Universität Heidelberg
Zentrum für Astronomie
Funding: Universität Heidelberg (Germany), FAPESP, PROEX (Brazil)
- 2010/2009 Michigan State University
2007 Physics and Astronomy Department
Funding: JINA (USA), FAPESP, PROEX (Brazil)

Invited / Contributed talks

2023

- 87. DELVE Collaboration Meeting
How to also find what you are not looking for: going on a fishing expedition
- 86. XIX J-PAS Collaboration Meeting
An R-process Enhanced Extremely Metal-Poor Star Identified with Narrow-band Photometry
- 85.** International Research Network for Nuclear Astrophysics – Online Seminar Series (watch it on [Youtube](#))
Neutron-capture in the wild: finding r-process enhanced metal-poor stars in the Milky Way and beyond
- 84. Observatório Nacional – S-PLUS 18th Collaboration Meeting
An r-process enhanced extremely metal-poor star identified by S-PLUS
- 83.** NSF's NOIRLab – NOIRLab South Colloquium
What else can you find when looking for Carbon Enhanced Ultra Metal-Poor Stars? A GHOST Story
- 82. NSF's NOIRLab – GHOST Webinar Series
How to Find What You Are Not Looking For: The curious case of SPLUS J1424-2542
- 81.** Lund University
What else can you find when looking for Ultra Metal-Poor Stars?
- 80. NSF's NOIRLab – SWEETS (Support Work Education and Exchange Talk Series)
The US National Gemini Office

2022

- 79. Centro de Estudios de Física del Cosmos de Aragón – 18th J-PAS Collaboration Meeting
The miniJPAS survey: stellar atmospheric parameters from 56 optical filters
- 78. NSF's NOIRLab – DECam at 10 years - Looking Back, Looking Forward
Searching for Chemically Pristine Stars with Narrowband Photometry
- 77. Centro Brasileiro de Pesquisas Físicas – S-PLUS 17th Collaboration Meeting
Mining S-PLUS for Metal-Poor Stars in the Milky Way
- 76.** Planetário da Gávea, Rio de Janeiro – O Céu do Sul e suas Maravilhas
SPLUS J2104–0049 e a Evolução Química do Universo
- 75.** Universidade de São Paulo – Astronomia ao Meio-dia (watch it on [Youtube](#) – in Portuguese)
A Tabela Periódica Astrofísica
- 74.** Universidade de São Paulo – Astrophysics Colloquium (watch it on [Youtube](#))
Is Carbon Ubiquitous in the High-Redshift Universe? A Stellar Archaeology perspective
- 73. Gemini Observatory Science Meeting 2022
Making good use of bad weather: a chemically pristine star found through the clouds with Gemini
- 72.** Observatório Nacional – Seminário da Coordenação de Astronomia e Astrofísica
Stellar Archaeology and Near-Field Cosmology: Understanding the Chemical Evolution of the Universe

2021

- 71. Universidade de São Paulo – S-PLUS 16th Collaboration Meeting
Mining the S-PLUS catalog to find chemically peculiar stars in the Galaxy
- 70.** Instituto Nacional de Pesquisas Espaciais – Seminários da Divisão de Astrofísica (watch it on [watch it on Youtube](#))
Stellar Archaeology and Near-Field Cosmology: Understanding the Chemical Evolution of the Universe
- 69.** Universidade Federal de Santa Catarina – IX Encontro de Física e Astronomia da UFSC
Stellar Archaeology and Near-Field Cosmology: Understanding the Chemical Evolution of the Universe

- [68.](#) Joint Institute for Nuclear Astrophysics – Physics of Atomic Nuclei High School Program
The Age and Chemical Evolution of the Universe from Two Stars in the Milky Way
- [67.](#) Universidade de São Paulo – S-PLUS 15th Collaboration Meeting
Searching for low-metallicity stars in S-PLUS
- [66.](#) NSF's NOIRLab – Live from NOIRLab @ Hawai'i (watch it on Youtube)
A chemically-peculiar star found from its colors

2020

- [65.](#) NSF's NOIRLab – Live from NOIRLab @ Hawai'i (Youtube)
The Age and Chemical Evolution of the Universe from Two Stars in the Milky Way
- [64.](#) NSF's NOIRLab – Gemini Observatory Science Coffee
From $R=40$ to $R=40,000$: Mining narrow-band photometric catalogs in search of low-metallicity stars
- [63.](#) Joint Institute for Nuclear Astrophysics – Physics of Atomic Nuclei High School Program
The Age and Chemical Evolution of the Universe from Two Stars in the Milky Way
- [62.](#) Regional Center for Space Science and Tec Education for West Asia / Arab Union for Astronomy & Space Science
Our eyes in the skies: How telescopes help us place ourselves in the Universe
- [61.](#) NSF's NOIRLab Colloquium
Near-Field Cosmology with Narrow-Band Photometry and Spectroscopy of Low-Metallicity Stars
- [60.](#) Universidade de São Paulo – Astrophysics Colloquium
Near-Field Cosmology using Narrow-Band Photometry and Low-Metallicity Stars
- [59.](#) Universidade de São Paulo – Astronomia ao Meio-dia (watch it on Youtube – in Portuguese)
Agulhas no palheiro: A evolução química e idade do Universo contadas por duas estrelas

2019

- [58.](#) National Optical Astronomy Observatory
Stellar Archaeology: Understanding the Chemical Evolution of the Universe through Color Maps of the Night Sky
- [57.](#) Joint Institute for Nuclear Astrophysics – Physics of Atomic Nuclei High School Program
The Age and Chemical Evolution of the Universe from two stars in the Milky Way
- [56.](#) Consejo Superior de Investigaciones Científicas – 17th J-PAS Collaboration Meeting
Identification of Low-Metallicity Stars from Narrow-Band Photometry
- [55.](#) San Francisco State University – Physics & Astronomy Colloquium
Stellar Archaeology: Origin of the Chemical Elements in the Universe through a 59-Color Map of the Sky

2018

- [54.](#) Kavli IPMU at The University of Tokyo – Stellar Archaeology as a Time Machine to the First Stars
The Mass Distribution of the First Stars revealed by Abundance Pattern Matching of Ultra Metal-Poor Stars
- [53.](#) Kavli IPMU at The University of Tokyo – Introduction to Stellar Archaeology
Radioactive Stellar Ages
- [52.](#) Texas A&M University Commerce – Physics & Astronomy Colloquium
Stellar Archaeology: Understanding the Origin of the Chemical Elements through a 59-Color Map of the Night Sky
- [51.](#) Chungnam National University – Department of Astronomy & Space Science Seminar
The Origin of the Chemical Elements in the Universe revealed by a 12-Color Map of the Night Sky
- [50.](#) Korea Astronomy and Space Science Institute Colloquium
Constraints on Near-Field Cosmology through Abundance Pattern Matching of Ultra Metal-Poor Stars

- [49.](#) Universidade de São Paulo – [Astronomy Colloquium](#)
The Southern Photometric Local Universe Survey (S-PLUS): An Overview
- [48.](#) Universidade de São Paulo – [S-PLUS Meeting](#)
Short update on S-PLUS SHORTS
- [47.](#) University of Notre Dame – Astronomy 1-minute talks (23 presenters)
Organizer and Presenter
- [46.](#) University of Notre Dame – [Our Universe Revealed](#)
A day in the life of an Astronomer
- [45.](#) Kavli Institute for Cosmological Physics – [Near-Field Cosmology with the Dark Energy Survey](#)
The Age Structure of the Milky Way Halo revealed by DES
- [44.](#) Joint Institute for Nuclear Astrophysics – [Physics of Atomic Nuclei High School Program](#)
Can we talk about the Age and Chemical Evolution of the Universe by looking at only two stars?
- [43.](#) Centro de Estudios de Física del Cosmos de Aragón – J-PLUS 2nd Virtual Meeting
J-PLUS Stellar Parameter Value Added Catalog
- [42.](#) Shanghai Jiao Tong University – Tsung-Dao Lee Institute [Workshop on The Exploding Universe](#)
Probing the mass distribution of the first stars through abundance pattern matching of ultra metal-poor stars
- [41.](#) JINA-CEE Frontiers in Nuclear Astrophysics – [Main Conference](#)
Observational constraints on the origin of the elements: from First stars to Neutron-Star mergers
- [40.](#) Manhattan College – Physics Department Colloquium
Understanding the Origin of the Elements in the Universe through a 12-Color Map of the Night Sky
- [39.](#) JINA-CEE Frontiers in Nuclear Astrophysics – [Junior Workshop](#)
Speaking Skills
- [38.](#) Centro de Estudios de Física del Cosmos de Aragón – [16th J-PAS Collaboration Meeting - Pathfinder science](#)
Constraints on First-Star Nucleosynthesis from J-PAS Photometry of Low-Metallicity Stars
- [37.](#) Universidade de São Paulo – S-PLUS Collaboration Meeting (online)
Updates on S-PLUS Short Survey(s)

2017

- [36.](#) Universidade de São Paulo – S-PLUS Collaboration Meeting (online)
Updates on S-PLUS Short Survey(s)
- [35.](#) Michiana Astronomical Society – [MAS monthly meeting speaker](#)
A Tale of Two Stars: Revealing the Age and Chemical Evolution of the Universe
- [34.](#) University of Notre Dame – Astro-Skills Lunch
The do's and don'ts when plotting data
- [33.](#) Red de Infraestructuras de Astronomía – [Early Data Release and Scientific Exploitation of the J-PLUS Survey](#)
Identification of (Bright) Carbon-Enhanced Metal-Poor Stars with J-PLUS Photometry
- [32.](#) GMT Community Science Meeting – Chemical Evolution of the Universe
A Monte Carlo approach to find the Progenitors of Ultra Metal-Poor Stars (Rapid Poster Talk)
- [31.](#) University of Notre Dame – [The Great American Eclipse at Notre Dame](#)
Co-organizer / Astronomy faculty representative – 3,500 attendees
- [30.](#) University of Notre Dame – Research Experiences for Undergraduates (REU) Program
A needle in a haystack: What one star can tell us about the age and chemical evolution of the entire Universe
- [29.](#) Centro de Estudios de Física del Cosmos de Aragón – J-PLUS 1st Virtual Meeting
Identifying (Carbon-Enhanced) Metal-Poor Stars from J-PLUS Photometry
- [28.](#) Joint Institute for Nuclear Astrophysics – [Physics of Atomic Nuclei High School Program](#)
Stellar Archaeology: The Age and Chemistry of the Universe revealed by old Stars

- [27.](#) Universidade de São Paulo – Astrophysics Colloquium
Searching for the Origin of the Elements Using a 12-Color Map of the Night Sky

2016

- [26.](#) University of Notre Dame – Astrophysics Seminar
A Monte Carlo approach to find the Progenitors of Ultra Metal-Poor Stars
- [25.](#) University of Notre Dame – Department of Physics Colloquium
Searching for the Origin of the Elements Using a 12-Color Map of the Night Sky
24. University of Notre Dame – Astronomy 1-minute talks (19 presenters)
Organizer and Presenter
23. Universidade de São Paulo – X-PLUS Collaboration Meeting
Identifying Bright Carbon-Enhanced Metal-Poor Stars from S-PLUS Photometry
- [22.](#) University of Notre Dame – Research Experiences for Undergraduates (REU) Program
Near-Field Cosmology with Metal-Poor Stars
- [21.](#) University of Notre Dame – Our Universe Revealed
A day in the life of an Astronomer
20. University of Notre Dame – Our Universe Revealed
Our eyes in the skies: How telescopes help us place ourselves in the Universe
19. 227th Meeting of the American Astronomical Society
Identifying Bright Carbon-Enhanced Metal-Poor Stars in the RAVE Catalog

2015

18. University of Notre Dame – Our Universe Revealed
The stuff we are made of: how do we determine the chemical elements in stars and the Universe?
17. University of Notre Dame – Astronomy 1-minute talks (15 presenters)
Organizer and Presenter
- [16.](#) Joint Institute for Nuclear Astrophysics / University of Notre Dame – High School On Air Talk
Stellar Archaeology: The Age and Chemistry of the Universe revealed by old Stars – YouTube video
- [15.](#) Michigan State University – JINA-CEE Nuclear Astrophysics Lunch Research Discussions
Observing the First Stars through the Atmospheres of Ultra Metal-Poor Stars
14. Universidade de São Paulo – X-PLUS Collaboration Meeting
Identifying Carbon-Enhanced Metal-Poor Stars from S-PLUS Photometry
- [13.](#) University of Notre Dame – Research Experiences for Undergraduates (REU) Program
Galactic Archaeology: The Chemical Evolution and Age of the Universe revealed by old Stars

2014

- [12.](#) University of Notre Dame – Astronomy Seminar
Exploring the history of the Galactic halo with Carbon-Enhanced Metal-Poor stars
- [11.](#) Massachusetts Institute of Technology – Kavli Institute
Exploring the history of the Galactic halo with Carbon-Enhanced Metal-Poor stars

2013

10. National Optical Astronomy Observatory
(Carbon Enhanced) metal-poor stars and the chemical evolution of the Universe

9. Gemini Observatory – Northern Operations Center
Metal-poor stars as tracers of the chemical evolution of the Galaxy

2012

8. Universidade Cruzeiro do Sul - Astronomy Colloquium
Search for Carbon-Enhanced Metal-Poor stars in the Halo(es) of the Galaxy
7. Universidade de São Paulo - Astronomy Colloquium
Spectroscopy from $R=300$ to 30000: metal-poor stars and Galactic chemical evolution
6. Universidade de São Paulo - Invitation to Physics: undergraduate weekly seminar
Galactic Archaeology: chemical evolution of the Universe revealed by metal-poor stars
5. Universidade de São Paulo - Astronomy at noon: undergraduate weekly seminar
Census of the Milky Way

2011

4. Universidade de São Paulo - Chemical Evolution Group Seminar
Rediscovering the Dual Halo of the Milky Way via Hierarchical Clustering
3. Universidade de São Paulo - Astronomy at noon: undergraduate weekly seminar
Stellar Archaeology
2. Universidade de São Paulo - Astronomy Colloquium
Making good use of bad weather: finding extremely metal-poor stars in the clouds
1. ESO Headquarters - Santiago - Astronomy Colloquium
Searches for Metal-Poor Stars from the Hamburg/ESO Survey using the CH G-band

Academic Experience

Student/Postdoc supervision

Postdoctoral level

2022–2023 Felipe de Almeida Fernandes ([Universidade de São Paulo](#) - Visiting Fellow at NSF's NOIRLab)

Graduate Level

2023– Eduardo Machado Pereira (Observatório Nacional, Brazil - visiting student at NOIRLab)

2019–2022 Carlos Andrés Galarza Arevalo ([Observatório Nacional - Brazil](#))

2019–2022 Joseph Zepeda (University of Notre Dame)

2019–2022 Derek Shank (University of Notre Dame)

2015–2020 Sarah Dietz (University of Notre Dame)

2015–2020 Dmitrii Gudín (University of Notre Dame)

2015–2020 Devin Whitten (University of Notre Dame)

2015–2020 Kaitlin Rasmussen (University of Notre Dame)

2015–2017 Geoffrey Lentner (University of Notre Dame)

2010–2016 Rafael Santucci (M.Sc. and Ph.D. - Universidade de São Paulo)

Undergraduate Level - University of Notre Dame

2020 Dante Komater (Physics Major)

2019–2020 Lucas Pinheiro (Engineering Major)

2019 Shenghua Liu (Physics Major)

2019 Winter Allen (Arkansas Tech University - REU)

2019 Yihao Zhou (Shanghai Jiao Tong University - REU)

2016–2018 Erik Peterson

2016–2018 David Kalamarides

2015–2018 Spencer Clark (Glynn Family Honors Program) - [Senior Thesis](#)

2016–2017 John Roach

2016–2017 Cristobal Gonzales

2016–2017 Michael Kurkowski

2017 Jazmine Jefferson (University of Kansas - REU)

2017 Derek Shank (Ohio Wesleyan University - DISC/REU) - [video report](#)

2017 Diego Fernandez (University of Oregon - REU)

2016 Travis Hodges (Austin Peay State University - DISC/REU)

2016 Miguel Correa (San Diego State University - REU)

2015 Siyu He (Xi'an Jiaotong University - REU)

2012–2014 William Alves (Universidade de São Paulo)

2008–2010 Rafael Santucci (Universidade de São Paulo)

Committee Service - University of Norte Dame

- 2019–2020 Undergraduate Research, Department of Physics
2016–2018 Graduate Recruitment, Department of Physics
2015–2018 Preliminary Exam Committee, Department of Physics
2015–2018 University Committee on Research & Sponsored Programs, Notre Dame Research

Thesis Defense Committee

- 2023 [Yuri Abuchaim de Oliveira](#) (M.Sc.)
Universidade de São Paulo
2023 [Fabricia Oliveira Barbosa](#) (M.Sc.)
Universidade de São Paulo
2018–2022 [Heitor Ernandes](#) (Ph.D. - committee chair)
Universidade de São Paulo
2021 [Raphaela Fernandes de Melo](#) (M.Sc.)
Observatório Nacional
2019 [Henrique Reggiani](#) (Ph.D.)
Universidade de São Paulo
2016 [Rafael Miloni Santucci](#) (Ph.D.)
Universidade de São Paulo
2016 [Camilo Francisco Javier Muñoz Peña](#) (M.Sc.)
Universidade de São Paulo

Teaching

Lead Instructor (LI) / Co-Instructor (CI) / Guest Lecturer (GL)

Undergraduate

University of Notre Dame

- | | | |
|------|------|--------------------------------------------------------------------------------------------------------------------------------------|
| 2020 | (LI) | Descriptive Astronomy (SU20-PHYS-10140)
Course Instructor Feedback: 5.0/5.0 - link to full report |
| | (LI) | Descriptive Astronomy (SP20-PHYS-10140)
Course Instructor Feedback: 5.0/5.0 - link to full report |
| | (LI) | General Physics B - E & M Laboratory (SP20-PHYS-11422)
Course Instructor Feedback: 5.0/5.0 - link to full report |
| | (GL) | Engineering Physics II Laboratory (SP20-PHYS-11320) |
| | (GL) | Engineering Physics I Laboratory (SP20-PHYS-11310) |
| 2019 | (LI) | Physics A - Mechanics Laboratory (FA19-PHYS-11411)
Course Instructor Feedback: 5.0/5.0 - link to full report |
| | (LI) | Descriptive Astronomy (SU19-PHYS-10140)
Course Instructor Feedback: 5.0/5.0 - link to full report |
| 2018 | (GL) | Descriptive Astronomy (FA18-PHYS-10140) |
| 2017 | (CI) | Descriptive Astronomy (FA17-PHYS-10140) |
| | (LI) | General Physics B - E & M Laboratory (SP17-PHYS-11422)
Course Instructor Feedback: 4.8/5.0 - link to full report |
| 2016 | (GL) | Descriptive Astronomy (FA16-PHYS-10140) |
| 2015 | (GL) | Modern Observational Techniques (FA15-PHYS-30481) |

Universidade Virtual do Estado de São Paulo

- | | | |
|------|------|--------------------------------|
| 2012 | (LI) | Sky and Stars: An introduction |
| | (LI) | Galaxies: An introduction |
| 2011 | (LI) | Sky and Stars: An introduction |
| | (LI) | Galaxies: An introduction |

Graduate

University of Notre Dame

- | | | |
|------|------|----------------------------------------------------|
| 2017 | (CI) | Astrophysics: Stars (SP17-PHYS-80202) |
| 2016 | (CI) | Large-Scale Astronomical Surveys (SP16-PHYS-70210) |
| 2015 | (GL) | Astrophysics: Stars (SP15-PHYS-80202) |

Universidade de São Paulo

- | | | |
|------|------|-------------------------|
| 2012 | (GL) | Observational Astronomy |
|------|------|-------------------------|

Teaching Assistant - Universidade de São Paulo

- | | |
|------|---------------------------|
| 2009 | Introduction to Astronomy |
| | Fundamental Astronomy |
| 2008 | Introduction to Astronomy |
| 2007 | Fundamental Astronomy |

Other relevant information

Technical skills

Linux/Unix/MACOSX/Windows operating systems
Shell Scripting (sh, bash, tcsh, zsh)
L^AT_EX, OpenOffice, MS Office. Co-author of the L^AT_EXtemplate [IAGTESE](#)
Python (iPython/Jupyter Notebooks): scipy, numpy, pandas, scikitlearn, pyfits, astropy
R-project (terminal/RStudio): FITSio, tidyverse, cluster, sciviews
Databases: SQL (PostgreSQL/pgAdmin3), SDSS CasJobs, ADQL (J-PLUS/J-PAS/TAPVizieR)
Web: html, ccs, wordpress, apache, curl, wget, ssh, ftp, drupal, Google Analytics, Matomo
Graphics: Gnuplot, ggplot2, matplotlib, bokeh, tableau
Data reduction: IRAF/Pyraf packages, DRAGONS, ESO Reflex/Gasgano
Astronomy tools: WCSTools, CDSclient, STILTS, SkyCalc
Documentation: Sphinx, readthedocs
Version control and DevOps: Git, GitHub, GitLab

Online Resources

Webpage: <http://vmplacco.github.io/>
LinkedIn: <https://www.linkedin.com/in/vinicius-placco/>
GitHub: <https://github.com/vmplacco/>
stackoverflow: <https://stackoverflow.com/users/5964833/vinicius-placco>
pythonanywhere: <https://vplacco.pythonanywhere.com/>
Sample webpages/
side projects: <http://vmplacco.github.io/#resources>

Professional Affiliations/Service

Member of the American Astronomical Society
Member of the Brazilian Astronomical Society
Member of the Brazilian Physical Society
Member of the JINA Center for the Evolution of the Elements

Referee for the American Astronomical Society Journals
Referee for the AAAS Science Magazine
Referee for Astronomy & Astrophysics
Referee for Monthly Notices of the Royal Astronomical Society
Referee for Astronomy & Computing

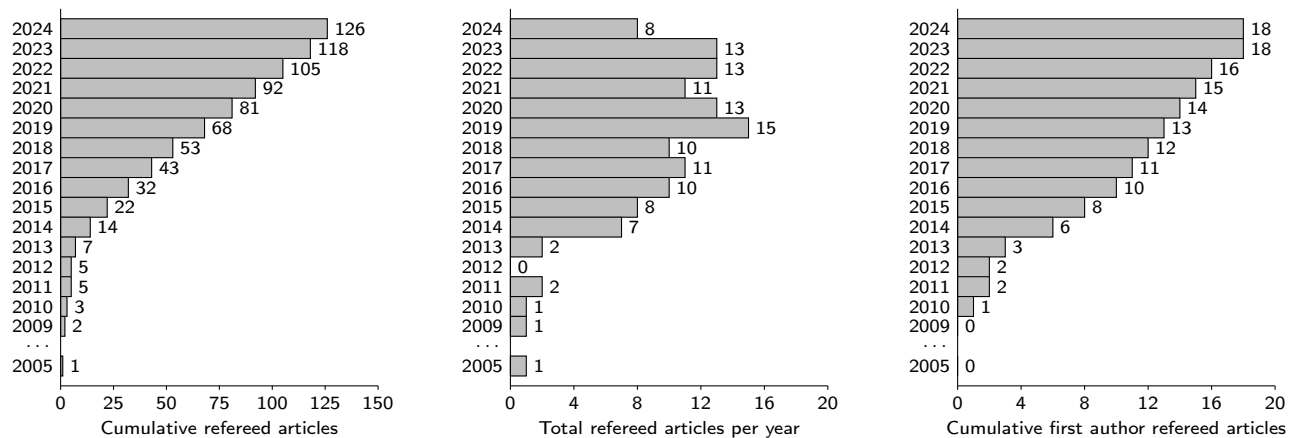
Quantitative Indicators

- ADS: **8296 citations** / **h-index = 41** / **i10-index = 103** (April 1, 2024 - [ADS link](#))
- Google Scholar: **9788 citations** / **h-index = 45** / **i10-index = 101** (April 1, 2024 - [Google Scholar link](#))
- ADS Publication List (complete - [ADS link](#)) / (refereed only - [ADS link](#))
- ORCID iD - [0000-0003-4479-1265](#) / ResearcherID - [C-6864-2015](#)

Publication list

Refereed articles

Total: 126 publications (incl. 18 first, 13 second, 16 third, and 14 fourth author articles)



126. Herpich, F. R., Almeida-Fernandes, F., Oliveira Schwarz, G.B., Lima, E., Nakazono, L., Alonso-Garcia, J., Fonseca-Faria, M., Sartori, M., Bolutavicius, G., Fabiano de Souza, G., Hartmann, E., Li, L., Espinosa, L., Kanaan, A., Schoenell, W., Werle, A., Machado-Pereira, E., Gutierrez-Soto, L., Santos-Silva, T., Smith Castelli, A., Lacerda, E., Barbosa, C., Perottoni, H., Ferreira Lopes, C., Valença, R., Re Martho, P., Bom, C., Bonatto, C., Carvalho, M., Cernic, V., Coelho, P., Cortesi, A., Cubillos Palma, B., Ferreira Alberice, V., Huaynasi, F., Jacob Perin, G., Jaque Arancibia, M., Krabbe, A., Lima-Dias, C., Lomeli-Nunez, L., Lopes de Oliveira, R., Luiz Figueiredo, A., Losch, E., Navarete, F., Oliveira, J., Overzier, R., **Placco, V. M.**, et al.
The Fourth S-PLUS Data Release: 12-filter photometry covering 3000 square degrees in the Southern Hemisphere
2024, Astronomy & Astrophysics, submitted
125. Perottoni, H. D., **Placco, V. M.**, Almeida-Fernandes, F., Herpich, F. R., Rossi, S., Beers, T., Smiljanic, R., Amarante, J., Limberg, G., Werle, A., Rocha-Pinto, H., Beraldo e Silva, L., Daflon, S., Alvarez-Candal, A., Schoenell, W., Ribeiro, T., Kanaan, A.
The S-PLUS Ultra-Short Survey: First Data Release
2024, Astronomy & Astrophysics, submitted
124. Xylakis-Dornbusch, T., Hansen, T. T., Beers, T. C., Christlieb, N., Ezzeddine, R., Frebel, A., Holmbeck, E., **Placco, V. M.**, Roederer, I. U., Sakari, C. M., Sneden, C.
The R-Process Alliance: Analysis of Limited-r Stars
2024, Astronomy & Astrophysics, submitted
123. Roederer, I. U., Beers, T. C., Hattori, K., **Placco, V. M.**, Hansen, T. T., Ezzeddine, R., Frebel, A., Holmbeck, E., Sakari, C. M.
The R-Process Alliance: 2MASS J22132050–5137385, the Star with the Highest-known r-process Enhancement at $[Eu/Fe] = +2.45$
2024, The Astrophysical Journal, submitted

122. Shah, S., Ezzeddine, R., Roederer, I. U., Hansen, T. T., [Placco, V. M.](#), Beers, T. C., Frebel, A., Ji, A. P., Holmbeck, E. M., Marshall, J., Sakari, C. M.
The R-Process Alliance: Detailed Chemical Composition of an R-Process Enhanced Star with UV and Optical Spectroscopy
2024, *Monthly Notices of the Royal Astronomical Society*, in press
121. Dovgal, A., Venn, K., Sestito, F., Hayes, C., McConnachie, A., Navarro, J., [Placco, V. M.](#), Starkenburg, E., Martin, N. F., Pazder, J., Chiboucas, K., Deibert, E., Gamen, R., Heo, J., Jeong, M., Kalari, V., Martioli, E., Xu, S., Diaz, R., Gomez-Jimenez, M., Henderson, D., Prado, P., Quiroz, C., Robertson, J., Ruiz-Carmona, R., Simpson, C., Urrutia, C., Waller, F., Berg, T., Burley, G., Hartman, Z., Ireland, M., Margheim, S., Perez, G., Thomas-Osip, J.
Probing the early Milky Way with GHOST spectra of an extremely metal-poor star in the Galactic disk
2024, *Monthly Notices of the Royal Astronomical Society*, vol. 527, 7810 ([ADS](#) | [PDF](#))
120. Quispe-Huaynasi, F., Roig, F., [Placco, V. M.](#), Beraldo e Silva, L., Pereira, C. B., Daflon, S., Kanaan, A., Mendes de Oliveira, C., Ribeiro, T., Schoenell, W.
Characterisation of high velocity stars in the S-PLUS internal fourth data release
2024, *Monthly Notices of the Royal Astronomical Society*, vol. 527, 6173 ([ADS](#) | [PDF](#))
119. Spalding, E., Wilhelm, R., De Lee, N., Long, S., Beers, T. C., [Placco, V. M.](#), Kielkopf, J., Lee, Y. S., Pepper, J., Carrell, K.
RRLFE: Software for Generating and Applying Metallicity Calibrations for RR Lyrae Variable Stars Across a Wide Range of Phases and Temperatures
2024, *Monthly Notices of the Royal Astronomical Society*, vol. 527, 828 ([ADS](#) | [PDF](#))
- [118](#). [Placco, V. M.](#), Almeida-Fernandes, F., Holmbeck, E. M., Roederer, I. U., Mardini, M. K., Hayes, C. R., Venn, K., Chiboucas, K., Deibert, E., Gamen, R., Heo, J., Jeong, M., Kalari, V., Martioli, E., Xu, S., Diaz, R., Gomez-Jimenez, M., Henderson, D., Prado, P., Quiroz, C., Ruiz-Carmona, R., Simpson, C., Urrutia, C., McConnachie, A. W., Pazder, J., Burley, G., Ireland, M., Waller, F., Berg, T. A. M., Robertson, J. G., Hartman, Z., Jones, D. O., Labrie, K., Perez, G., Ridgway, S., Thomas-Osip, J.
SPLUS J142445.34–254247.1: An R-Process Enhanced, Actinide-Boost, Extremely Metal-Poor star observed with GHOST
2023, *The Astrophysical Journal*, vol. 959, 60 ([ADS](#) | [PDF](#))
117. Roederer, I. U., Vassh, N., Holmbeck, E. M., Mumpower, M. R., Surman, R., Cowan, J. J., Beers, T. C., Ezzeddine, R., Frebel, A., Hansen, T. T., [Placco, V. M.](#), Sakari, C. M.
Element abundance patterns in stars indicate fission of nuclei heavier than uranium
2023, *Science*, vol. 382, 1177 ([ADS](#) | [PDF](#))
116. Barbuy, B., Friaça, A., Ernandes, H., Moura, T., Masseron, T., Cunha, K., Smith, V., Souto, D., Pérez-Villegas, A., Souza, S., Chiappini, C., Queiroz, A., Fernández-Trincado, J., da Silva, P., Santiago, B., Anders, F., Schiavon, R., Valentini, M., Minniti, D., Geisler, D., [Placco, V. M.](#), et. al.
Light elements Na and Al in 58 bulge spheroid stars from APOGEE
2023, *Monthly Notices of the Royal Astronomical Society*, vol. 526, 2365 ([ADS](#) | [PDF](#))
115. Roederer, I. U., Pace, A., [Placco, V. M.](#), Caldwell, N., Koposov, S., Mateo, M., Olszewski, E., Walker, M.
Abundance Analysis of Stars at Large Radius in the Sextans Dwarf Spheroidal Galaxy
2023, *The Astrophysical Journal*, vol. 954, 55 ([ADS](#) | [PDF](#))
114. Almeida-Fernandes, F., [Placco, V. M.](#), Rocha-Pinto, H. J., Borges Fernandes, M., Limberg, G., Beraldo e Silva, L., Amarante, J., Perottoni, H. D., Overzier, R., Schoenell, W., Ribeiro, T., Kanaan, A., Mendes de Oliveira, C.
Chemodynamical Properties and Ages of Metal-Poor Stars in S-PLUS
2023, *Monthly Notices of the Royal Astronomical Society*, vol. 523, 2934 ([ADS](#) | [PDF](#))
113. Abuchaim, Y., Perottoni, H. D., Rossi, S., Limberg, G., Pérez-Villegas, A., Santucci, R. M., [Placco, V. M.](#), Sales-Silva, J. V., Anders, F., Rocha-Pinto, H.

- The Chemodynamical Nature of the Triangulum-Andromeda Overdensity*
2023, *The Astrophysical Journal*, vol. 949, 48 ([ADS](#) | [PDF](#))
112. Quispe-Huaynasi, F., Roig, F., Daflon, S., Pereira, C., **Placco, V. M.**, Jiménez-Esteban, F., Galindo-Guil, F., Alvarez-Candal, A., Alcaniz, J., Angulo, R., Cenarro, J., Cristóbal-Hornillos, D., Dupke, R., Ederoclite, A., Hernández-Monteagudo, C., López-Sanjuan, C., Marín-Franch, A., Moles, M., Sodr   Jr., L., V  zquez Ram  o, H.
J-PLUS: characterisation of high velocity stars in the second data release
2023, *Monthly Notices of the Royal Astronomical Society*, vol. 522, 3898 ([ADS](#) | [PDF](#))
111. Jeong, M., Lee, Y. S., Beers, T. C., **Placco, V. M.**, Kim, Y. K., Koo, J.-R., Lee, H.-G., Yang, S.-C.
Search for Extremely Metal-Poor Stars with GEMINI-N/GRACES I. Chemical-abundance Analysis
2023, *The Astrophysical Journal*, vol. 948, 38 ([ADS](#) | [PDF](#))
110. Zepeda, J., Beers, T. C., **Placco, V. M.**, Shank, D., Gudin, D., Hirai, Y., Yoon, J., Mardini, M., Pifer, C., Catapano, T., Calagna, S.
Chemo-Dynamically Tagged Groups of CEMP Stars in the Halo of the Milky Way. I. Untangling the Origins of CEMP-s and CEMP-no Stars
2023, *The Astrophysical Journal*, vol. 947, 23 ([ADS](#) | [PDF](#))
- 109.** **Placco, V. M.** & Stanghellini, L.
US National Gemini Office in the NOIRLab era
2023, *Journal of Astronomical Telescopes, Instruments, and Systems*, vol. 9, 7003 ([ADS](#) | [PDF](#))
108. Garro, E. R., Fern  ndez-Trincado, J. G., Minniti, D., Moya, W. H., Palma, T., Beers, T. C., **Placco, V. M.**, Barbuy, B., Sneden, C., Alves-Brito, A., Dias, B., Af  sar, M., Freljij, H., Lane, R. R.
Gaia-IGRINS synergy: Orbits of Newly Identified Milky Way Star Clusters
2023, *Astronomy & Astrophysics*, vol. 669, A136 ([ADS](#) | [PDF](#))
107. Shank, D., Beers, T., **Placco, V. M.**, Gudin, D., Catapano, T., Holmbeck, E. M., Ezzeddine, R., Roederer, I. U., Sakari, C. M., Frebel, A., Hansen, T. T.
The R-Process Alliance: Chemo-Dynamically Tagged Groups II. Extended Sample of Halo r-Process-Enhanced Stars
2023, *The Astrophysical Journal*, vol. 943, 23 ([ADS](#) | [PDF](#))
106. Yuan, H. -B., Yang, L., Cruz, P., Jim  nez-Esteban, F., Daflon, S., **Placco, V. M.**, Akas, S., Alfaro, E. J., Galarza, C. A., Gon  alves, D., Liu, J. -F., Cenarro, A., Mar  n-Franch, A., Varela, J., Ederoclite, A., L  pez-Sanjuan, C., Abramo, R., Alcaniz, J., Ben  tez, N., Bonoli, S., Crist  bal-Hornillos, D., Dupke, R. A., Hern  n-Caballero, A., Mendes de Oliveira, C., Moles, M., Sodr   Jr., L., V  zquez Ram  o, H., Taylor, K.
The miniJPAS survey: stellar atmospheric parameters from 56 optical filters
2023, *Monthly Notices of the Royal Astronomical Society*, vol. 518, 2018 ([ADS](#) | [PDF](#))
105. Schatz, H., Becerril Reyes, A. D., Best, A., Brown, E. F., Chatzioannou, K., Chipps, K. A., Deibel, C. M., Ezzeddine, R., Galloway, D. K., Hansen, C. J., Herwig, F., Ji, A. P., Lugaro, M., Meisel, Z., Norman, D., Read, J. S., Roberts, L. F., Spyrou, A., Tews, I., Timmes, F. X., Travaglio, C., Vassh, N., Abia, C., Adsley, P., Agarwal, S., Aliotta, M., Aoki, W., Arcones, A., Aryan, A., Bandyopadhyay, A., Banu, A., Bardayan, D. W., Barnes, J., Bauswein, A., Beers, T. C., Bishop, J., Boztepe, T., C  t  , B., Caplan, M. E., Champagne, A. E., Clark, J. A., Couder, M., Couture, A., de Mink, S. E., Debnath, S., deBoer, R. J., den Hartogh, J., Denissenkov, P., Dexheimer, V., Dillmann, I., Escher, J. E., Famiano, M. A., Farmer, R., Fisher, R., Fr  hlich, C., Frebel, A., Fryer, C., Fuller, G., Ganguly, A. K., Ghosh, S., Gibson, B., Gorda, T., Gourgoullos, K., Graber, V., Gupta, M., Haxton, W., Heger, A., Hix, W. R., Ho, W. C., Holmbeck, E. M., Hood, A., Huth, S., Imbriani, G., Izzard, R., Jain, R., Jayatissa, H., Johnston, Z., Kajino, T., Kankainen, A., Kiss, G., Kwiatkowski, A., La Cognata, M., Laird, A., Lamia, L., Landry, P., Laplace, E., Launey, K., Leahy, D., Leckenby, G., Lennarz, A., Longfellow, B., Lovell, A., Lynch, W., Lyons, S., Maeda, K., Masha, E., Matei, C., Merc, J., Messer, B., Montes, F., Mukherjee, A., Mumpower, M., Neto, D., Nevins, B., Newton, W., Nguyen, L. Q., Nishikawa, K., Nishimura, N., Nunes, F., O'Connor, E., O'Shea, B., Ong, W.-J., Pain, S., Pajkos, M., Pignatari, M., Pizzone, R., **Placco, V. M.**, et al.
Horizons: Nuclear Astrophysics in the 2020s and Beyond
2022, *Journal of Physics G*, vol. 49, 110502 ([ADS](#) | [PDF](#))

104. Razera, R., Barbuy, B., Moura, T., Ernandes, H., Pérez-Villegas, A., Souza, S. O., Chiappini, C., Queiroz, A. B. A., Anders, F., Fernández-Trincado, J. G., Friaça, A. C. S., Cunha, K., Smith, V. V., Santiago, B. X., Schiavon, R. P., Valentini, M., Minniti, D., Schultheis, M., Geisler, D., Sobek, J., **Placco, V. M.**, Zoccali, M.
Abundance analysis of 58 APOGEE metal-poor spheroid bulge stars
2022, Monthly Notices of the Royal Astronomical Society, vol. 517, 4590 ([ADS](#) | [PDF](#))
103. Mardini, M., Frebel, A., Ezzeddine, R., Chiti, A., Meiron, Y., Ji, A., **Placco, V. M.**, Roederer, I., Meléndez, J.
The chemical abundance pattern of the extremely metal-poor thin disc star 2MASS J1808–5104 and its origins
2022, Monthly Notices of the Royal Astronomical Society, vol. 517, 3993 ([ADS](#) | [PDF](#))
- 102. Placco, V. M.**, Almeida-Fernandes, F., Arentsen, A., Lee, Y. S., Schoenell, W., Ribeiro, T., Kanaan, A.
Mining S-PLUS for Metal-Poor Stars in the Milky Way
2022, The Astrophysical Journal Supplement Series, vol. 262, 8 ([ADS](#) | [PDF](#))
101. Roederer, I. U., Cowan, J. J., Pignatari, M., Beers, T. C., Den Hartog, E. A., Ezzeddine, R., Frebel, A., Hansen, T. T., Holmbeck, E. M., Mumpower, M. R., **Placco, V. M.**, Sakari, C. M., Surman, R., Vassh, N.
The R-Process Alliance: Abundance Universality among Some Elements at and between the First and Second R-Process Peaks
2022, The Astrophysical Journal, vol. 936, 84 ([ADS](#) | [PDF](#))
100. Arentsen, A., **Placco, V. M.**, Lee, Y. S., Aguado, D. S., Martin, N. F., Starkenburg, E., Yoon, J.
On the inconsistency of $[C/Fe]$ abundances and the fractions of carbon-enhanced metal-poor stars among various stellar surveys
2022, Monthly Notices of the Royal Astronomical Society, vol. 515, 4082 ([ADS](#) | [PDF](#))
99. Shank, D., Komater, D., Beers, T., **Placco, V. M.**, Huang, Y.
Dynamically Tagged Groups of Metal-Poor Stars II. The Radial Velocity Experiment Data Release 6
2022, The Astrophysical Journal Supplement Series, vol. 261, 19 ([ADS](#) | [PDF](#))
98. Roederer, I. U., Lawler, J. E., Den Hartog, E. A., **Placco, V. M.**, Surman, R., Beers, T. C., Ezzeddine, R., Frebel, A., Hansen, T. T., Hattori, K., Holmbeck, E. M., Sakari, C. M.
The R-Process Alliance: A Nearly Complete R-Process Abundance Template Derived from Ultraviolet Spectroscopy of the R-Process-Enhanced Metal-Poor Star HD 222925
2022, The Astrophysical Journal Supplement Series, vol. 260, 27 ([ADS](#) | [PDF](#))
97. Aoki, W., Beers, T. C., Honda, S., Ishikawa, H. T., Matsuno, T., **Placco, V. M.**, Yoon, J., Harakawa, H., Hirano, T., Hodapp, K., Ishizuka, M., Jacobson, S., Kotani, T., Kudo, T., Kurokawa, Y., Kuzuhara, M., Nishikawa, J., Omiya, M., Serizawa, T., Tamura, M., Ueda, A., Vievard, S.
Silicon and Strontium abundances of very metal-poor stars determined from near-infrared spectra
2022, Publications of the Astronomical Society of Japan, vol. 74, 273 ([ADS](#) | [PDF](#))
96. Zepeda, J., Rasmussen, K. C., Beers, T., **Placco, V. M.**, Huang, Y., Depagne, É.
Metal-Poor Stars Observed with the Southern African Large Telescope II. An Extended Sample
2022, The Astrophysical Journal, vol. 927, 13 ([ADS](#) | [PDF](#))
95. Almeida-Fernandes, F., Sampedro, L., Herpich, F. R., Molino, A., Barbosa, C. E., Buzzo, M. L., Overzier, R. A., de Lima, E. V. R., Nakazono, L. M. I., Oliveira Schwarz, G. B., Perottoni, H. D., Bolutavicius, G. L., Gutiérrez-Soto, L. A., Santos-Silva, T., Vitorelli, A. Z., Werle, A., Whitten, D. D., Costa Duarte, M. V., Bom, C. R., Coelho, P., Sodrê Jr., L., **Placco, V. M.**, Teixeira, G. S. M., Alonso-García, J., Beers, T. C., Kanaan, A., Ribeiro, T., Schoenell, W., Mendes de Oliveira, C.
Data Release 2 of S-PLUS: Accurate template-fitting based photometry covering 1000 deg² in 12 optical filters
2022, Monthly Notices of the Royal Astronomical Society, vol. 511, 4590 ([ADS](#) | [PDF](#))
94. Shank, D., Beers, T., **Placco, V. M.**, Limberg, G., Jaques, E., Yuan, Zhen, Schlafman, K. C., Casey, A. R., Huang, Y., Lee, Y. S., Hattori, K., Santucci, R. M.
Dynamically Tagged Groups of Metal-Poor Stars from the Best & Brightest Survey
2022, The Astrophysical Journal, vol. 926, 26 ([ADS](#) | [PDF](#))

93. Galarza, C. A., Daflon, S., **Placco, V. M.**, Allende Prieto, C. Borges Fernandes, M., Yuan, H., López-Sanjuan, C., Lee, Y. S., Solano, E., Jiménez-Esteban, F., Sobral, D., Alvarez-Candal, A., Pereira, C. B., Akas, S., Martín, E., Jiménez-Teja, Y., Cenarro, J., Cristóbal-Hornillos, D., Hernández-Monteagudo, C., Marín-Franch, A., Moles, M., Varela, J., Vázquez Ramió, H., Alcaniz, J., Dupke, R., Ederoclite, A., Sodrè Jr., L., Angulo, R.
J-PLUS: Searching for very metal-poor star candidates using the SPEEM pipeline
2022, Astronomy & Astrophysics, vol. 657, A35 ([ADS](#) | [PDF](#))
92. López-Sanjuan, C., Yuan, H., Vázquez Ramió, H., Varela, J., Cristóbal-Hornillos, D., Tremblay, P. -E., Marín-Franch, A., Cenarro, A., Ederoclite, A., Alfaro, E., Alvarez-Candal, A., Daflon, S., Hernán-Caballero, A., Hernández-Monteagudo, C., Jiménez-Esteban, F., **Placco, V. M.**, Tempel, E., Alcaniz, J., Angulo, R., Dupke, R., Moles, M., Sodrè Jr., L.
J-PLUS: Systematic impact of metallicity on photometric calibration with the stellar locus
2021, Astronomy & Astrophysics, vol. 654, A61 ([ADS](#) | [PDF](#))
91. Bonoli, S., Marín-Franch, A., Varela, J., Vázquez Ramió, H., Abramo, L. R., Cenarro, A. J., Dupke, R. A., Vílchez, J. M., Cristóbal-Hornillos, D., González Delgado, R. M., Hernández-Monteagudo, C., López-Sanjuan, C., Muniesa, D., Civera, T., Ederoclite, A., Hernán-Caballero, A., Marra, V., Baqui, P., Cortesi, A., Cypriano, E., Daflon, S., de Amorim, A., Díaz-García, L., Diego, J., Martínez-Solaesche, G., Pérez, E., **Placco, V. M.**, et al.
The miniJPAS survey: a preview of the Universe in 56 colours
2021, Astronomy & Astrophysics, vol. 653, A31 ([ADS](#) | [PDF](#))
90. Arentsen, A., Starkenburg, E., Aguado, D. S., Martin, N. F., **Placco, V. M.**, Carlberg, R., González Hernández, J. I., Hill, V., Jablonka, P., Kordopatis, G., Lardo, C., Mashonkina, L. I., Navarro, J. F., Venn, K. A., Buder, S., Lewis, G. F., Wan, Z., Zucker, D. B.
The Pristine Inner Galaxy Survey (PIGS) III: carbon-enhanced metal-poor stars in the bulge
2021, Monthly Notices of the Royal Astronomical Society, vol. 505, 1239 ([ADS](#) | [PDF](#))
89. Dietz, S. E., Yoon, J., Beers, T. C., **Placco, V. M.**, Lee, Y. S.
Two Populations of Carbon-Enhanced Metal-Poor Stars in the Disk System of the Milky Way
2021, The Astrophysical Journal, vol. 914, 100 ([ADS](#) | [PDF](#))
88. Limberg, G., Santucci, R. M., Rossi, S., Shank, D., **Placco, V. M.**, Beers, T., Schlafman, K. C., Casey, A. R., Perotoni, H. D., Lee, Y. S.
Targeting Bright Metal-poor Stars in the Disk and Halo Systems of the Galaxy
2021, The Astrophysical Journal, vol. 913, 11 ([ADS](#) | [PDF](#))
- 87. Placco, V. M.**, Roederer, I. U., Lee, Y. S., Almeida-Fernandes, F., Herpich, F. R., Perotoni, H. D., Schoenell, W., Ribeiro, T., Kanaan, A.
SPLUS J210428.01–004934.2: An Ultra Metal-Poor Star Identified from Narrow-Band Photometry
2021, The Astrophysical Journal Letters, vol. 912, 32 ([ADS](#) | [PDF](#))
86. Whitten, D. D., **Placco, V. M.**, Beers, T., An, D., Lee, Y. S., Almeida-Fernandes, F., Herpich, F., Daflon, S., Barbosa, C., Perotoni, H., Rossi, S., Tissera, P., Yoon, J., Schoenell, W., Ribeiro, T., Kanaan, A., Youakim, K.
The Photometric Metallicity and Carbon Distributions of the Milky Way's Halo and Solar Neighborhood from S-PLUS Observations of SDSS Stripe 82
2021, The Astrophysical Journal, vol. 912, 147 ([ADS](#) | [PDF](#))
85. Fernández-Trincado, J. G., Beers, T., Minniti, D., Carigi, L., **Placco, V. M.**, Chun, S., Lane, R., Geisler, D., Villanova, S. Souza, S., Barbuy, B., Pérez-Villegas, A., Chiappini, C., Queiroz, A., Tang, B., Alonso-García, J., Piatti, A., Palma, T. Alves-Brito, A., Moni Bidin, C., Roman-Lopes, A., Muñoz, R., Singh, H., Kundu, R., Chaves-Velasquez, L., Romero-Colmenares, M., Longa-Peña, P., Soto, M., Vieira, K.
APOGEE discovery of a chemically atypical star disrupted from NGC 6723 and captured by the Milky Way bulge
2021, Astronomy & Astrophysics, vol. 647, 64 ([ADS](#) | [PDF](#))
84. Gudin, D., Shank, D., Beers, T. C., Yuan, Z., Limberg, G., Roederer, I. U., **Placco, V. M.**, Holmbeck, E. M., Dietz, S., Rasmussen, K. C., Hansen, T. T., Sakari, C. M., Ezzeddine, R., Frebel, A.

The R-Process Alliance: Chemodynamically Tagged Groups of Halo r-Process-Enhanced Stars Reveal a Shared Chemical-Evolution History

2021, *The Astrophysical Journal*, vol. 908, 79 ([ADS](#) | [PDF](#))

83. Limberg, G., Rossi, S., Beers, T., Perottoni, H., Pérez-Villegas, A., Santucci, R., Abuchaim, Y., **Placco, V. M.**, Lee, Y. S., Christlieb, N., Norris, J. E., Bessell, M., Ryan, S. G., Wilhelm, R., Rhee, J., Frebel, A.

Dynamically Tagged Groups of Very Metal-Poor Halo Stars from the HK and Hamburg/ESO Surveys

2021, *The Astrophysical Journal*, vol. 907, 10 ([ADS](#) | [PDF](#))

82. Baqui, P., Marra, V., Casarini, L., Angulo, R., Díaz-García, L., Hernández-Monteagudo, C., Lopes, P. A., López-Sanjuan, C., Muniesa, D., **Placco, V. M.**, Quartín, M., Queiroz, C., Sobral, D., Solano, E., Tempel, E., Varela, J., Vílchez, J. M., Abramo, L. R., Alcaniz, J., Benitez, N., Bonoli, S., Carneiro, S., Cenarro, A. J., Cristóbal-Hornillos, D., de Amorim, A., de Oliveira, C. M., Dupke, R. A., Ederoclite, A., González Delgado, R. M., Marín-Franch, A., Moles, M., Vázquez Ramió, H., Sodrè, L., Taylor, K.

The miniJPAS survey: star-galaxy classification using machine learning

2021, *Astronomy & Astrophysics*, vol. 645, A87 ([ADS](#) | [PDF](#))

81. Rasmussen, K., Zepeda, J., Beers, T. C., **Placco, V. M.**, Depagne, É., Frebel, A., Dietz, S., Hartwig, T.

Metal-Poor Stars Observed with the Southern African Large Telescope

2020, *The Astrophysical Journal*, vol. 905, 20 ([ADS](#) | [PDF](#))

80. Mardini, M. K., **Placco, V. M.**, Meiron, Y., Ishchenko, M., Avramov, B., Mazzarini, M., Berczik, P., Arca Sedda, M., Beers, T. C., Frebel, A., Taani, A., Donnari, M., Al-Wardat, M. A., Zhao, G.

Cosmological Insights into the Early Accretion of r-Process-Enhanced stars. I. A Comprehensive Chemodynamical Analysis of LAMOST J1109+0754

2020, *The Astrophysical Journal*, vol. 903, 88 ([ADS](#) | [PDF](#))

79. Fernández-Trincado, J. G., Minniti, D., Beers, T., Villanova, S., Geisler, D., Souza, S., Smith, L., **Placco, V. M.**, Vieira, K., Pérez-Villegas, A., Barbuy, B., Alves-Brito, A., Bidin, C. M., Alonso-García, J., Tang, B., Palma, T.

The enigmatic globular cluster UKS 1 obscured by the bulge: H-band discovery of nitrogen-enhanced stars

2020, *Astronomy & Astrophysics*, vol. 643, 145 ([ADS](#) | [PDF](#))

78. Fernández-Trincado, J. G., Beers, T. C., Minniti, D., Carigi, L., Barbuy, B., **Placco, V. M.**, Moni Bidin, C., Villanova, S., Roman-Lopes, A., Nitschelm, C.

Discovery of a Large Population of Nitrogen-Enhanced Stars in the Magellanic Clouds

2020, *The Astrophysical Journal Letters*, vol. 903, 17 ([ADS](#) | [PDF](#))

77. Roederer, I. U., Lawler, J. E., Holmbeck, E. M., Beers, T. C., Ezzeddine, R., Frebel, A., Hansen, T. T., Ivans, I. I., Karakas, A. I., **Placco, V. M.**, Sakari, C. M.

Detection of Pb II in the Ultraviolet Spectra of Three Metal-Poor Stars

2020, *The Astrophysical Journal Letters*, vol. 902, 24 ([ADS](#) | [PDF](#))

76. Holmbeck, E. M., Hansen, T. T., Beers, T. C., **Placco, V. M.**, Whitten, D. D., Rasmussen, K. C., Roederer, I. U., Sakari, C., Ezzeddine, R., Frebel, A., Drout, M. R., Simon, J. D., Thompson, I. B., Bland-Hawthorn, J., Gibson, B. K., Grebel, E. K., Kordopatis, G., Kunder, A., Meléndez, J., Navarro, J. F., Reid, W. A., Seabroke, G., Steinmetz, M., Watson, F., Wyse, R. F. G.

The R-Process Alliance: Fourth Data Release from the Search for R-Process-Enhanced Stars in the Galactic Halo

2020, *The Astrophysical Journal Supplement Series*, vol. 249, 30 ([ADS](#) | [PDF](#))

75. Ezzeddine, R., Rasmussen, K., Frebel, A., Chiti, A., Hinojisa, K., **Placco, V. M.**, Ji, A. P., Beers, T. C., Hansen, T. T., Roederer, I. U., Sakari, C. M., Meléndez, J.

The R-Process Alliance: First Magellan/MIKE Release from the Southern Search for R-Process-enhanced Stars

2020, *The Astrophysical Journal*, vol. 898, 150 ([ADS](#) | [PDF](#))

74. Cain, M., Frebel, A., Ji, A. P., **Placco, V. M.**, Ezzeddine, R., Roederer, I. U., Hattori, K., Beers, T. C., Meléndez, J., Hansen, T. T., Sakari, C.

The R-Process Alliance: A Very Metal-Poor, Extremely r-Process-Enhanced Star with $[Eu/Fe] = +2.2$, and the

Class of r-III Stars

2020, *The Astrophysical Journal*, vol. 898, 40 ([ADS](#) | [PDF](#))

- 73. Placco, V. M.**, Santucci, R. M., Yuan, Z., Mardini, M. K., Holmbeck, E. M., Wang, X., Surman, R., Hansen, T., Roederer, I. U., Beers, T., Choplin, A., Ji, A., Ezzeddine, R., Frebel, A., Sakari, C., Whitten, D., Zepeda, J. *The R-Process Alliance: The Peculiar Chemical Abundance Pattern of RAVE J183013.5–455510*
2020, *The Astrophysical Journal*, vol. 897, 78 ([ADS](#) | [PDF](#))
72. Molino, A., Costa-Duarte, M. V., Sampedro, L., Herpich, F. R., Sodré, L., Jr., Mendes de Oliveira, C., Schoenell, W., Barbosa, C. E., Queiroz, C., Lima, E. V. R., Azanha, L., Muñoz-Elgueta, N., Ribeiro, T., Kanaan, A., Hernandez-Jimenez, J. A., Cortesi, A., Akas, S., Lopes de Oliveira, R., Torres-Flores, S., Lima-Dias, C., Nilo Castellon, J. L., Damke, G., Alvarez-Candal, A., Jiménez-Teja, Y., Coelho, P., Pereira, E., Montero-Dorta, A. D., Benítez, N., Gonçalves, T. S., Santana-Silva, L., Werner, S. V., Almeida, L. A., Lopes, P. A. A., Chies-Santos, A. L., Telles, E., de Souza, T. C. R., Gonçalves, D. R., de Souza, R. S., Makler, M., **Placco, V. M.**, Nakazono, L. M. I., Saito, R. K., Overzier, R. A., Abramo, L. R.
Assessing the photometric redshift precision of the S-PLUS survey: the Stripe-82 as a test-case
2020, *Monthly Notices of the Royal Astronomical Society*, vol. 499, 3884 ([ADS](#) | [PDF](#))
71. Dietz, S. E., Yoon, J., Beers, T. C., **Placco, V. M.**
The Metallicity Gradient and Complex Formation History of the Outermost Halo of the Milky Way
2020, *The Astrophysical Journal*, vol. 894, 34 ([ADS](#) | [PDF](#))
70. Yoon, J., Whitten, D. D., Beers, T. C., Lee, Y. S., Masseron, T., **Placco, V. M.**
Identification of a Group III CEMP-no Star in the Dwarf Spheroidal Galaxy Canes Venatici I
2020, *The Astrophysical Journal*, vol. 894, 7 ([ADS](#) | [PDF](#))
69. Yuan, Z., Myeong, G. C., Beers, T. C., Evans, N. W., Lee, Y. S., Banerjee, P., Gudin, D., Hattori, K., Li, H., Matsuno, T., **Placco, V. M.**, Smith, M. C., Whitten, D. D., Zhao, G.
Dynamical Relics of the Ancient Galactic Halo
2020, *The Astrophysical Journal*, vol. 891, 39 ([ADS](#) | [PDF](#))
68. Andrade-Santos, F., van Weeren, R. J., Di Gennaro, G., Wittman, D., Ryu, D., Lal, D. V., **Placco, V. M.**, Fogarty, K., Jee, M. J., Stroe, A., Sobral, D., Forman, W. R., Jones, C., Kraft, R. P., Murray, S. S., Brüggén, M., Kang, H., Santucci, R. M., Golovich, N., Dawson, W. A.
Chandra Observations of the Spectacular A3411–12 Merger Event
2019, *The Astrophysical Journal*, vol. 887, 31 ([ADS](#) | [PDF](#))
67. Fernández-Trincado, J. G., Mennickent, R., Cabezas, M., Zamora, O., Martell, S., Beers, T. C., **Placco, V. M.**, Nataf, D., Mészáros, S., Minniti, D., Schleicher, D. R., Tang, B., Pérez-Villegas, A., Robin, A. C., Reylé, C.
Discovery of a nitrogen-enhanced mildly metal-poor binary system: Possible evidence for pollution from an extinct AGB star
2019, *Astronomy & Astrophysics*, vol. 631, A97 ([ADS](#) | [PDF](#))
66. Fernández-Trincado, J. G., Beers, T. C., **Placco, V. M.**, Moreno, E., Alves-Brito, A., Minniti, D., Tang, B., Pérez-Villegas, A., Reylé, C., Robin, A. C., Villanova, S.
Discovery of a New Stellar Subpopulation Residing in the (Inner) Stellar Halo of the Milky Way
2019, *The Astrophysical Journal Letters*, vol. 886, 8 ([ADS](#) | [PDF](#))
65. López-Sanjuan, C., Varela, J., Cristóbal-Hornillos, D., Vázquez Ramió, H., Carrasco, J. M., Tremblay, P. -E., Whitten, D., **Placco, V. M.**, Marín-Franch, A., Cenarro, A., Ederoclite, A., Alfaro, E., Coelho, P., Civera, T., Hernández-Fuertes, J., Jiménez-Esteban, F., Jiménez-Teja, Y., Maíz Apellániz, J., Sobral, D., Vilchez, J., Alcaniz, J., Angulo, R., Dupke, R., Hernández-Monteagudo, C., Mendes de Oliveira, C., Moles, M., Sodré Jr., L.
J-PLUS: Photometric Calibration of Large-Area Multi-Filter Surveys with Stellar and White Dwarf loci
2019, *Astronomy & Astrophysics*, vol. 631, A119 ([ADS](#) | [PDF](#))
64. Whitten, D. D., Beers, T. C., **Placco, V. M.**, Santucci, R. M., Denisenkov, P., Tissera, P. B., Mejías, A., Hernitschek, N., Carollo, D.

- Constraints on the Galactic Inner Halo Assembly History from the Age Gradient of Blue Horizontal-Branch Stars*
2019, The Astrophysical Journal, vol. 884, 67 ([ADS](#) | [PDF](#))
63. Mendes de Oliveira, C., Ribeiro, T., Schoenell, W., Kanaan, A., Overzier, R., Molino, A., Sampedro, L., Coelho, P., Barbosa, C., Cortesi, A., Costa-Duarte, M. V., Herpich, F. R., Hernandez-Jimenez, J., **Placco, V. M.**, et al.
The Southern Photometric Local Universe Survey (S-PLUS): improved SEDs, morphologies and redshifts with 12 optical filters
2019, Monthly Notices of the Royal Astronomical Society, vol. 489, 241 ([ADS](#) | [PDF](#))
62. Mardini, M. K., **Placco, V. M.**, Taani, A., Li, H., Zhao, G.
Metal-Poor Stars Observed with the Automated Planet Finder Telescope. II. Chemodynamical Analysis of Six Low-Metallicity Stars in the Halo System of the Milky Way
2019, The Astrophysical Journal, vol. 882, 27 ([ADS](#) | [PDF](#))
61. Ezzeddine, R., Frebel, A., Roederer, I. U., Tominaga, N., Tumlinson, J., Ishigaki, M., Nomoto, K., **Placco, V. M.**, Aoki, W.
Evidence for an Aspherical Population III Supernova Explosion Inferred from the Hyper Metal-Poor Star HE 1327–2326
2019, The Astrophysical Journal, vol. 876, 97 ([ADS](#) | [PDF](#))
60. Mardini, M. K., Li, H., **Placco, V. M.**, Alexeeva, S., Carollo, D., Taani, A., Ablimit, I., Wang, L., Zhao, G.
Metal-Poor Stars Observed with the Automated Planet Finder Telescope. I. Discovery of Five Carbon-Enhanced Metal-Poor Stars from LAMOST
2019, The Astrophysical Journal, vol. 875, 89 ([ADS](#) | [PDF](#))
59. Sakari, C. M., Roederer, I. U., **Placco, V. M.**, Beers, T. C., Ezzeddine, R., Frebel, A., Hansen, T. T., Sneden, C., Cowan, J. J., Wallerstein, G., Farrell, E. M., Venn, K. A., Matijević, G., Wyse, R., Bland-Hawthorn, J., Chiappini, C., Freeman, K. C., Gibson, B. K., Grebel, E. K., Helmi, A., Kordopatis, G., Kunder, A., Navarro, J. Reid, W., Seabroke, G., Steinmetz, M., Watson, F.
The R-Process Alliance: Discovery of a Low- α , r -process-enhanced Metal-poor Star in the Galactic Halo
2019, The Astrophysical Journal, vol. 874, 148 ([ADS](#) | [PDF](#))
58. Hansen, C. J., Hansen, T. T., Koch, A., Beers, T. C., Nordström, B., **Placco, V. M.**, Andersen, J.
Abundances and kinematics of carbon-enhanced metal-poor stars in the Galactic halo. A new classification scheme based on Sr and Ba
2019, Astronomy & Astrophysics, vol. 623, A128 ([ADS](#) | [PDF](#))
57. Cenarro, A., Moles, M., Cristóbal-Hornillos, D., Marín-Franch, A., Ederoclite, A., Varela, J., López-Sanjuan, C., Hernández-Monteagudo, C., Angulo, R., Vázquez Ramió, H., Viironen, K., Bonoli, S., Orsi, A., Hurier, G., San Roman, I., Vilella-Rojo, G., Díaz-García, L., Logroño-García, R., Gurung-López, S., Spinoso, D., Izquierdo-Villalba, D., Aguerri, J., Allende Prieto, C., Bonatto, C., Carvano, J., Chies-Santos, A., Daflon, S., Dupke, R., Falcón-Barroso, J., Gonçalves, D., Jiménez-Teja, Y., Molino, A., **Placco, V. M.**, Solano, E., Whitten, D., et al.
J-PLUS: The Javalambre Photometric Local Universe Survey
2019, Astronomy & Astrophysics, vol. 622, A176 ([ADS](#) | [PDF](#))
56. López-Sanjuan, C., Vázquez Ramió, H., Varela, J., Spinoso, D., Angulo, R. E., Muniesa, D., Viironen, K., Cristóbal-Hornillos, D., Cenarro, A. J., Ederoclite, A., Marín-Franch, A., Moles, M., Ascaso, B., Bonoli, S., Chies-Santos, A. L., Coelho, P. R., Costa-Duarte, M. V., Cortesi, A., Díaz-García, L. A., Dupke, R. A., Galbany, L., Hernández-Monteagudo, C., Logroño-García, R., Molino, A., Orsi, A., **Placco, V. M.**, Sampedro, L., San Roman, I., Vilella-Rojo, G., Whitten, D., Mendes de Oliveira, C. L., Sodrê Jr., L.
J-PLUS: Morphological star/galaxy classification by PDF analysis
2019, Astronomy & Astrophysics, vol. 622, A177 ([ADS](#) | [PDF](#))
55. Whitten, D. D., **Placco, V. M.**, Beers, T. C., Chies-Santos, A. L., Bonatto, C., Varela, J., Cristóbal-Hornillos, D., Ederoclite, A., Akas, S., Caballero, J. A., Coelho, P., Costa-Duarte, M. V., Borges Fernandes, M., Lopes de Oliveira, R., Orsi, A. A., Vázquez Ramió, H., Rossi, S., Cenarro, A. J., Daflon, S., Dupke, R. A., Marín-Franch, A., Mendes de Oliveria, C., Moles, M., Sodrê, L.

J-PLUS: Identification of Low-Metallicity Stars with Artificial Neural Networks using SPHINX

2019, Astronomy & Astrophysics, vol. 622, A182 ([ADS](#) | [PDF](#))

- 54. Placco, V. M.**, Santucci, R. M., Beers, T. C., Chanamé, J., Sepúlveda, M. P., Coronado, J., Rossi, S., Lee, Y. S., Starkenburg, E., Youakim, K., Barrientos, M., Ezzeddine, R., Frebel, A., Hansen, T. T., Holmbeck, E. M., Ji, A. P., Rasmussen, K. C., Roederer, I. U., Sakari, C. M., Whitten, D. D.

The R-Process Alliance: Spectroscopic Follow-up of 857 Low-Metallicity Star Candidates from the Best & Brightest Survey

2019, The Astrophysical Journal, vol. 870, 122 ([ADS](#) | [PDF](#))

- 53. Sakari, C. M.**, **Placco, V. M.**, Farrell, E. M., Roederer, I. U., Wallerstein, G., Beers, T. C., Ezzeddine, R., Frebel, A., Hansen, T. T., Holmbeck, E. M., Sneden, C., Cowan, J. J., Venn, K. A., Davis, C. E., Matijević, G., Wyse, R., Bland-Hawthorn, J., Chiappini, C., Freeman, K. C., Gibson, B. K., Grebel, E. K., Helmi, A., Kordopatis, G., Kunder, A., Navarro, J., Reid, W., Seabroke, G., Steinmetz, M., Watson, F.

The R-Process Alliance: First Release from Northern Search for R-Process-Enhanced Stars in the Galactic Halo

2018, The Astrophysical Journal, in vol. 868, 110 ([ADS](#) | [PDF](#))

- 52. Wanying Fu, S.**, Simon, J. D., Shetrone, M., Bovy, J., Beers, T. C., Fernández-Trincado, J., **Placco, V. M.**, Zamora, O., Allende-Prieto, C., García-Hernández, D. A., Harding, P., Ivans, I. I., Lane, R., Nitschelm, C., Roman-Lopes, A., Sobeck, J.

The Origin of the 300 km s⁻¹ Stream near Segue 1

2018, The Astrophysical Journal, vol. 866, 42 ([ADS](#) | [PDF](#))

- 51. Roederer, I. U.**, Sakari, C. M., **Placco, V. M.**, Beers, T. C., Ezzeddine, R., Frebel, A., Hansen, T. T.

The R-Process Alliance: A Comprehensive Abundance Analysis of HD 222925, a Metal-Poor Star with an Extreme R-Process Enhancement of $[Eu/H] = -0.14$

2018, The Astrophysical Journal, vol. 865, 129 ([ADS](#) | [PDF](#))

- 50. Cain, M.**, Frebel, A., Gull, M., Ji, A. P., **Placco, V. M.**, Beers, T. C., Meléndez, J., Ezzeddine, R., Casey, A. R., Hansen, T. T., Roederer, I. U., Sakari, C.

The R-Process Alliance: Chemical Abundances for a Trio of R-Process-Enhanced Stars – One Strong, One Moderate, One Mild

2018, The Astrophysical Journal, vol. 864, 43 ([ADS](#) | [PDF](#))

- 49. Gull, M.**, Frebel, A., Cain, M., **Placco, V. M.**, Ji, A. P., Abate, C., Ezzeddine, R., Karakas, A. I., Hansen, T. T., Sakari, C., Holmbeck, E. M., Santucci, R. M., Casey, A. R., Beers, T. C.

The R-Process Alliance: Discovery of the first metal-poor star with a combined r- and s-process element signature

2018, The Astrophysical Journal, vol. 862, 174 ([ADS](#) | [PDF](#))

- 48. Yoon, J.**, Beers, T., Dietz, S., Lee, Y. S., **Placco, V. M.**, Da Costa, G., Keller, S., Owen, C. I., Sharma, M.

Galactic Archeology with the AEGIS Survey: The Evolution of Carbon and Iron in the Galactic Halo

2018, The Astrophysical Journal, vol. 861, 146 ([ADS](#) | [PDF](#))

- 47. Holmbeck, E. M.**, Beers, T. C., Roederer, I. U., **Placco, V. M.**, Hansen, T. T., Sakari, C., Sneden, C., Liu, C., Lee, Y. S., Frebel, A.

The R-Process Alliance: 2MASS J09544277+5246414, The Most Actinide-Enhanced r-II Star Known

2018, The Astrophysical Journal Letters, vol. 859, 24 ([ADS](#) | [PDF](#))

- 46. Placco, V. M.**, Beers, T. C., Santucci, R. M., Chanamé, J., Sepúlveda, M. P., Coronado, J., Points, S. D., Kaleida, C. C., Rossi, S., Kordopatis, G., Lee, Y. S., Matijević, G., Frebel, A., Hansen, T. T., Holmbeck, E. M., Rasmussen, K. C., Roederer, I. U., Sakari, C. M., Whitten, D. D.

Spectroscopic Validation of Low-Metallicity Stars from RAVE

2018, The Astronomical Journal, vol. 155, 256 ([ADS](#) | [PDF](#))

- 45. Hansen, T. T.**, Holmbeck, E. M., Beers, T. C., **Placco, V. M.**, Roederer, I. U., Frebel, A., Sakari, C. M., Simon, J. D., Thompson, I. B.

The R-Process Alliance: First Release from Southern Search for R-Process-Enhanced Stars in the Galactic Halo

2018, The Astrophysical Journal, vol. 858, 92 ([ADS](#) | [PDF](#))

44. Sakari, C. M., [Placco, V. M.](#), Hansen, T. T., Holmbeck, E. M., Beers, T. C., Frebel, A. F., Roederer, I. U., Venn, K. A., Wallerstein, G., Davis, C. E., Farrell, E., Yong, D.
The r-process Pattern of a Bright, Highly r-process-enhanced Metal-poor Halo Star at $[Fe/H] \sim -2$
2018, *The Astrophysical Journal Letters*, vol. 854, 20 ([ADS](#) | [PDF](#))
43. Shappee, B. J., Simon, J. D., Drout, M. R., Piro, A. L., Morrell, N., Prieto, J. L., Kasen, D., Holoien, T. W.-S., Kollmeier, J. A., Kelson, D. D., Coulter, D. A., Foley, R. J., Kilpatrick, C. D., Siebert, M. R., Madore, B. F., Murguía-Berthier, A., Pan, Y.-C., Prochaska, J. X., Ramirez-Ruiz, E., Rest, A., Adams, C., Alatalo, K., Banádos, E., Baughman, J., Bernstein, R. A., Bitsakis, T., Boutsia, K., Bravo, J. R., Di Mille, F., Higgs, C. R., Ji, A. P., Maravelias, G., Marshall, J. L., [Placco, V. M.](#), Prieto, G., Wan, Z.
Early Spectra of a Gravitational Wave Source GW170817: Evolution of a Neutron Star Merger
2017, *Science*, 10.1126/science.aag0186 ([ADS](#) | [PDF](#))
42. LIGO Scientific Collaboration and Virgo Collaboration, Fermi GBM, INTEGRAL, IceCube Collaboration, . . . , TOROS: Transient Robotic Observatory of the South Collaboration (incl. [Placco, V. M.](#)), . . .
Multi-messenger Observations of a Binary Neutron Star Merger
2017, *The Astrophysical Journal Letters*, vol. 848, 12 ([ADS](#) | [PDF](#))
41. Díaz, M. C., Macri, L. M., Garcia Lambas, D., Mendes de Oliveira, C., Nilo Castellón, J. L., Ribeiro, T., Sánchez, B., Schoenell, W., Abramo, L. R., Akras, S., Alcaniz, J. S., Artola, R., Beroiz, M., Bonoli, S., Cabral, J., Camuccio, R., Castillo, M., Chavushyan, V., Coelho, P., Colazo, C., Costa-Duarte, M. V., Cuevas Larenas, H., DePoy, D. L., Domínguez Romero, M., Dultzin, D., Fernández, D., García, J., Girardini, C., Gonçalves, D. R., Gonçalves, T. S., Gurovich, S., Jiménez-Teja, Y., Kanaan, A., Lares, M., Lopes de Oliveira, R., López-Cruz, O., Marshall, J. L., Melia, R., Molino, A., Padilla, N., Peñuela, T., [Placco, V. M.](#), Quiñones, C., Ramírez Rivera, A., Renzi, V., Riguccini, L., Ríos-López, E., Rodriguez, H., Sampedro, L., Schneider, M., Sodr , L., Starck, M., Torres-Flores, S., Tornatore, M., Zdrozny, A.
Observations of the first electromagnetic counterpart to a gravitational wave source by the TOROS collaboration
2017, *The Astrophysical Journal Letters*, vol. 848, 29 ([ADS](#) | [PDF](#))
40. Reggiani, H., Mel ndez, J., Kobayashi, C., Karakas, A., Ram rez, I., [Placco, V. M.](#)
Constraining cosmic scatter in the Galactic Halo through a differential analysis of Metal Poor Stars
2017, *Astronomy & Astrophysics*, vol. 608, 46 ([ADS](#) | [PDF](#))
39. Kiełty, C. L., Venn, K. A., Loewen, N. B., Shetrone, M., [Placco, V. M.](#), Jahandar, F., M sz ros, Sz., Martell, S.
Carbon-enhanced metal-poor stars in the SDSS-APOGEE database
2017, *Monthly Notices of the Royal Astronomical Society*, vol. 471, 404 ([ADS](#) | [PDF](#))
38. Fern ndez-Trincado, J. G., Zamora, O., Garcia-Hernandez, D. A., Souto, D., Dell’Agli, F., Schiavon, R. P., Geisler, D., Tang, B., Villanova, S., Hasselquist, S., Mennickent, R. E., Cunha, K., Shetrone, M., Allende-Prieto, C., Vieira, K., Zasowski, G., Sobeck, J., Hayes, C. R., Majewski, S. R., [Placco, V. M.](#), Beers, T. C., Schleicher, D. R. G., Robin, A. C., M sz ros, Sz., Masseron, T., Garcia-Perez, A. E., Anders, F., Meza, A., Alves-Brito, A., Carrera, R., Minniti, D., Lane, R. R., Fernandez-Alvar, E., Moreno, E., Pichardo, B., Perez-Villegas, A., Schultheis, M., Roman-Lopes, A., Fuentes, C. E., Nitschelm, C., Harding, P., Bizyaev, D., Pan, K., Oravetz, D., Simmons, A., Ivans, I. I., Blanco-Cuaresma, S., Hernandez, J., Alonso-Garcia, J., Valenzuela, O., Chaname, J.
Atypical Mg-poor Milky Way field stars with globular cluster second-generation like chemical patterns
2017, *The Astrophysical Journal Letters*, vol. 846, 2 ([ADS](#) | [PDF](#))
37. Hasselquist, S., Shetrone, M., Smith, V. V., Holtzman, J., McWilliam, A., Fern ndez-Trincado, J. G., Beers, T. C., Majewski, S. R., Nidever, D. L., Tang, B., Tissera, P. B., Fern ndez-Alvar, E. F., Allende-Prieto, C., Battaglia, G., Carigi, L., Cunha, K., Delgado Inglada, G., Frinchaboy, P., Garc a-Hern ndez, D. A., Geisler, D., Minniti, D., [Placco, V. M.](#), Schultheis, M., Sobeck, J., Villanova, S.
APOGEE Chemical Abundances of the Sagittarius Dwarf Galaxy
2017, *The Astrophysical Journal*, vol. 845, 162 ([ADS](#) | [PDF](#))
- [36. Placco, V. M.](#), Holmbeck, E. M., Frebel, A., Beers, T. C., Surman, R. A., Ji, A. P., Ezzedine, R., Points, S. D., Kaleida, C. C., Hansen, T. T., Sakari, C. M., Casey, A. R.

- RAVE J203843.2–002333: The First Highly R-process-enhanced Star Identified in the RAVE Survey.*
2017, *The Astrophysical Journal*, vol. 844, 18 ([ADS](#) | [PDF](#))
35. Lee, Y. S., Beers, T. C., Kim, Y. K., **Placco, V. M.**, Yoon, J., Carollo, D., Masseron, T., Jung, J.
Chemical Cartography. I. A Carbonicity Map of the Galactic Halo
2017, *The Astrophysical Journal*, vol. 836, 91 ([ADS](#) | [PDF](#))
34. Beers, T. C., **Placco, V. M.**, Carollo, D., Rossi, S., Lee, Y. S., Frebel, A., Norris, J. E., Dietz, S., Masseron, T.
Bright Metal-Poor Stars from the Hamburg/ESO Survey. II. A Chemodynamical Analysis
2017, *The Astrophysical Journal*, vol. 835, 81 ([ADS](#) | [PDF](#))
33. van Weeren, R. J., Andrade-Santos, F., Dawson, W. A., Golovich, N., Lal, D. V., Kang, H., Ryu, D., Brüggen, M., Oglean, G. A., Forman, W. R., Jones, C., **Placco, V. M.**, Santucci, R. M., Wittman, D., Jee, M. J., Kraft, R. P., Sobral, D., Stroe, A., Fogarty, K.
The Case for Electron Re-Acceleration at Galaxy Cluster Shocks
2017, *Nature Astronomy*, vol. 1, 5 ([Nature Astronomy link](#) | [Issue cover](#) | [PDF](#))
32. Carollo, D., Beers, T., **Placco, V. M.**, Santucci, R. M., Denissenkov, P., Tissera, P. B., Lentner, G., Rossi, S., Lee, Y. S., Tumlinson, J.
The age structure of the Milky Way's halo
2016, *Nature Physics*, vol. 12, 1170 ([Nature Physics link](#) | [Issue cover](#) | [PDF](#))
31. Hasselquist, S., Shetrone, M., Cunha, K., Smith, V. V., Holtzman, J., Lawler, J. E., Beers, T. C., Chojnowski, D., Fernández-Trincado, J., García-Hernández, D., Hearty, F., Majewski, S., Pereira, C., **Placco, V. M.**, Villanova, S., Zamora, O.
Identification of Neodymium in the APOGEE H-band Spectra
2016, *The Astrophysical Journal*, vol. 833, 81 ([ADS](#) | [PDF](#))
- 30.** **Placco, V. M.**, Frebel, A., Beers, T. C., Yoon, J., Chiti, A., Heger, A., Chan, C., Casey, A. R., Christlieb, N.
Observational Constraints on First-Star Nucleosynthesis. II. Spectroscopy of an Ultra Metal-Poor CEMP-no Star
2016, *The Astrophysical Journal*, vol. 833, 21 ([ADS](#) | [PDF](#))
29. Yoon, J., Beers, T., **Placco, V. M.**, Rasmussen, K., Carollo, D., He, S., Hansen, T., Roederer, I. U., Zeanah, J.
Observational Constraints on First-Star Nucleosynthesis. I. Evidence for Multiple Progenitors of CEMP-no Stars
2016, *The Astrophysical Journal*, vol. 833, 20 ([ADS](#) | [PDF](#))
- 28.** **Placco, V. M.**, Beers, T. C., Reggiani, H., Meléndez, J.
G64–12 and G64–37 are Carbon-Enhanced Metal-Poor Stars
2016, *The Astrophysical Journal Letters*, vol. 829, 24 ([ADS](#) | [PDF](#))
27. Roederer, I. U., **Placco, V. M.**, Beers, T. C.
Detection of Phosphorus, Sulphur, and Zinc in the Carbon-Enhanced Metal-Poor Star BD+44° 493
2016, *The Astrophysical Journal Letters*, vol. 824, 19 ([ADS](#) | [PDF](#))
26. Hansen, C. J., Nordström, B., Hansen, T., Kennedy, C. R., **Placco, V. M.**, Beers, T. C., Andersen, J., Cescutti, G., Chiappini, C.
Abundances of carbon-enhanced metal-poor stars as constraints on their formation
2016, *Astronomy & Astrophysics*, vol. 588, A37 ([ADS](#) | [PDF](#))
25. Hansen, T., Andersen, J., Nordström, B., Beers, T., **Placco, V. M.**, Yoon, J., Buchhave, L.
The role of binaries in the enrichment of the early Galactic halo.III. Carbon-Enhanced Metal-Poor Stars - CEMP-s
2016, *Astronomy & Astrophysics*, vol. 588, A3 ([ADS](#) | [PDF](#))
24. Hansen, T., Andersen, J., Nordström, B., Beers, T., **Placco, V. M.**, Yoon, J., Buchhave, L.
The role of binaries in the enrichment of the early Galactic halo.II. Carbon-Enhanced Metal-Poor Stars - CEMP-no
2016, *Astronomy & Astrophysics*, vol. 586, A160 ([ADS](#) | [PDF](#))

23. Meléndez, J., **Placco, V. M.**, Tucci-Maia, M., Ramírez, I., Li, T. S., Perez, G.,
2MASS J1808–5104: The Brightest ($V=11.9$) Ultra Metal-Poor Star
2016, *Astronomy & Astrophysics - Letter to the Editor*, vol. 585, L5 ([ADS](#) | [PDF](#))
22. Hollek, J., Frebel, A., **Placco, V. M.**, Karakas, A., Shetrone, M., Sneden, C., Christlieb, N.
The Chemical Abundances of Stars in the Halo (CASH) Project. III. A New Classification Scheme for Carbon-Enhanced Metal-poor Stars with S-process Element Enhancement
2015, *The Astrophysical Journal*, vol. 812, 121 ([ADS](#) | [PDF](#))
21. An, D., Beers, T. C., Santucci, R. M., Carollo, D., **Placco, V. M.**, Lee, Y. S., Rossi, S.
The Fractions of Inner- and Outer-Halo Stars in the Local Volume as Revealed by SDSS Photometry of Stripe 82
2015, *The Astrophysical Journal Letters*, vol. 813, 28 ([ADS](#) | [PDF](#))
20. Santucci, R. M., Beers, T. C., **Placco, V. M.**, Carollo, D., Rossi, S., Lee, Y. S., Denissenkov, P., Tumlinson, J., Tissera, P. B.
Chronography of the Milky Way's Halo System with Field Blue Horizontal-Branch Stars
2015, *The Astrophysical Journal Letters*, vol. 813, 16 ([ADS](#) | [PDF](#))
- 19.** **Placco, V. M.**, Beers, T. C., Ivans, I. I., Filler, D., Imig, J. A., Roederer, I., Abate, C., Hansen, T., Cowan, J., Frebel, A., Lawler, J. E., Schatz, H., Sneden, C., Sobeck, J., Aoki, W., Smith, V. V., Bolte, M.
Hubble Space Telescope Near-Ultraviolet Spectroscopy of the Bright CEMP-s Stars
2015, *The Astrophysical Journal*, vol. 812, 109 ([ADS](#) | [PDF](#))
18. Frebel, A., Chiti, A., Ji, A. P., Jacobson, H. R., **Placco, V. M.**
SD 1313–0019 – Another second-generation star with $[Fe/H] = -5.0$, observed with the Magellan Telescope
2015, *The Astrophysical Journal Letters*, vol. 810, 27 ([ADS](#) | [PDF](#))
- 17.** **Placco, V. M.**, Frebel, A., Lee, Y. S., Jacobson, H. R., Beers, T. C., Pena, J. M., Chan, C., Heger, A.
Metal-poor Stars Observed with the Magellan Telescope. III. New Extremely and Ultra Metal-Poor Stars from SDSS/SEGUE and Insights on the Formation of Ultra Metal-Poor Stars
2015, *The Astrophysical Journal*, vol. 809, 136 ([ADS](#) | [PDF](#))
16. Hansen, T., Hansen, C. J., Christlieb, N., Beers, T. C., Yong, D., Bessell, M. S., Frebel, A., García Pérez, A. E., **Placco, V. M.**, Norris, J. E., Asplund, M.
An Elemental Assay of Very, Extremely, and Ultra Metal-Poor Stars
2015, *The Astrophysical Journal*, vol. 807, 173 ([ADS](#) | [PDF](#))
15. Santucci, R. M., **Placco, V. M.**, Rossi, S., Beers, T. C., Reggiani, H. M., Lee, Y. S., Xue, X. X., Carollo, D.
The Frequency of Field Blue-Straggler Stars in the Thick Disk and Halo System of the Galaxy
2015, *The Astrophysical Journal*, vol. 801, 116 ([ADS](#) | [PDF](#))
- 14.** **Placco, V. M.**, Beers, T. C., Frebel, A., Stancliffe R.
Carbon-Enhanced Metal-Poor Star Frequencies in the Galaxy: Corrections for the Effect of Evolutionary Status on Carbon Abundances
2014, *The Astrophysical Journal*, vol. 797, 21 ([ADS](#) | [PDF](#))
13. Beers, T. C., Norris, J. E., **Placco, V. M.**, Lee Y. S., Rossi S., Carollo, D., Masseron, T.
Population Studies. XIII. A New Analysis of the Bidelman-MacConnell “Weak-metal” Stars - Confirmation of Metal-poor Stars in the Thick Disk of the Galaxy
2014, *The Astrophysical Journal*, vol. 794, 58 ([ADS](#) | [PDF](#))
- 12.** **Placco, V. M.**, Beers, T. C., Roederer, I., Cowan, J., Frebel, A., Filler, D., Ivans, I. I., Lawler, J. E., Schatz, H., Sneden, C., Sobeck, J., Aoki, W., Smith, V. V.
Hubble Space Telescope Near-Ultraviolet Spectroscopy of the Bright CEMP-no Star BD+44° 493
2014, *The Astrophysical Journal*, vol. 790, 34 ([ADS](#) | [PDF](#))

11. Carollo, D., Freeman, K., Beers, T. C., **Placco, V. M.**, Tumlinson, J., Martell, S. L.
Carbon-enhanced Metal-poor Stars: CEMP-s and CEMP-no Subclasses in the Halo System of the Milky Way
2014, *The Astrophysical Journal*, vol. 788, 180 ([ADS](#) | [PDF](#))
10. Hansen, T., Hansen, C. J., Christlieb, N., Yong, D., Bessell, M., García Pérez, A., Beers, T. C., **Placco, V. M.**, Frebel, A., Norris, J. E., Asplund, M.
Exploring the Origin of Lithium, Carbon, Strontium, and Barium with Four New Ultra Metal-poor Stars
2014, *The Astrophysical Journal*, vol. 787, 162 ([ADS](#) | [PDF](#))
9. Kennedy, C. R., Stancliffe, R. J., Kuehn, C., Beers, T. C., Kinman, T. D., **Placco, V. M.**, Reggiani, H., Rossi, S., Lee, Y. S.
Seven New Carbon-enhanced Metal-poor RR Lyrae Stars
2014, *The Astrophysical Journal*, vol. 787, 6 ([ADS](#) | [PDF](#))
- [8](#). **Placco, V. M.**, Frebel, A., Beers, T. C., Christlieb, N., Lee, Y. S., Kennedy, C. R., Rossi, S., Santucci, R.
Metal-poor Stars Observed with the Magellan Telescope. II. Discovery of Four Stars with $[Fe/H] \leq -3.5$
2014, *The Astrophysical Journal*, vol. 781, 40 ([ADS](#) | [PDF](#))
7. Lee Y. S., Beers T. C., Masseron T., Plez B., Rockosi, C., Sobeck, J., Yanny, B., Lucatello, S., Sivarani, T., **Placco, V. M.**, Carollo D.
Carbon-enhanced Metal-poor Stars in SDSS/SEGUE. I. Carbon Abundance Estimation and CEMP Star Frequency
2013, *The Astronomical Journal*, vol. 146, 132 ([ADS](#) | [PDF](#))
- [6](#). **Placco, V. M.**, Frebel A., Beers T. C., Karakas A., Kennedy C. R., Rossi S., Christlieb N., Stancliffe R.
Metal-Poor Stars Observed with the Magellan Telescope I. Constraints on Progenitor Mass and Metallicity of AGB Stars Undergoing s-Process Nucleosynthesis
2013, *The Astrophysical Journal*, vol. 770, 104 ([ADS](#) | [PDF](#))
- [5](#). **Placco, V. M.**, Kennedy C.R., Beers T.C., Christlieb N., Rossi S., Sivarani T., Lee Y.S., Reimers D., Wisotzki L.
Searches for Metal-Poor Stars from the Hamburg/ESO Survey using the CH G-band
2011, *The Astronomical Journal*, vol. 142, 188 ([ADS](#) | [PDF](#))
4. Kennedy, C.R., Sivarani, T., Beers, T.C., Lee, Y.S., **Placco, V. M.**, Rossi, S., Christlieb, N., Herwig, F., Plez, B.
 $[O/Fe]$ Estimates for Carbon-enhanced Metal-poor Stars from Near-infrared Spectroscopy
2011, *The Astronomical Journal*, vol. 141, 102 ([ADS](#) | [PDF](#))
- [3](#). **Placco, V. M.**, Kennedy C.R., Rossi S., Beers T.C., Lee Y.S., Christlieb N., Sivarani T., Reimers D., Wisotzki L.
A Search for Unrecognized Carbon-Enhanced Metal-Poor Stars in the Galaxy
2010, *The Astronomical Journal*, vol. 139, 1051 ([ADS](#) | [PDF](#))
2. Marsteller, B., Beers, T. C., Sivarani, T., Rossi, S., **Placco, V. M.**, Knapp, G. R., Johnson, J. A., Lucatello, S.
Automated Determination of $[Fe/H]$ and $[C/Fe]$ from Low-Resolution Spectroscopy
2009, *The Astronomical Journal*, vol. 138, 533 ([ADS](#) | [PDF](#))
1. Lichtenthäler, R., Lépine-Szily, A., Guimarães, V., Perego, C., **Placco, V. M.**, Camargo, O., Jr., Denke, R., de Faria, P. N., Benjamim, E. A., Added, N., Lima, G. F., Hussein, M. S., Kolata, J., Arazi, A.
Radioactive Ion beams in Brazil (RIBRAS)
2005, *The European Physical Journal A - Supplement*, vol. 25, 733 ([ADS](#) | [PDF](#))

Proceedings, non-refereed publications and abstracts

56. Fitzpatrick, M., **Placco, V. M.**, Bolton, A., Merino, B., Ridgway, S., Stanghellini, L.
Modernizing IRAF to Support Gemini Data Reduction
2024, *Astronomical Data Analysis Software & Systems XXXIII* ([ADS](#) | [Preprint](#))
55. Rantakyro, F., Kalari, V., **Placco, V. M.**
GHOST: High-Resolution Optical Spectroscopy at Gemini South
2024, *NSF's NOIRLab The Mirror*, issue #6 ([The Mirror](#) | [ADS](#))

54. Merino, B., **Placco, V. M.**, Stanghellini, L.
US NGO Completes the Science Verification of the GNIRS XD Pipeline
2024, NSF's NOIRLab *The Mirror*, issue #6 ([The Mirror](#) | [ADS](#))
53. Labrie, K., Simpson, C., Cardenes, R., Turner, J., Soraisam, M., Quint, B., Oberdorf, O., **Placco, V. M.**, Berke, D., Smirnova, O., Conseil, S., Vacca, W. D., Thomas-Osip, J.
DRAGONS-A Quick Overview
2021, *Research Notes of the American Astronomical Society*, vol. 7, 214 ([ADS](#) | [PDF](#))
- 52. Placco, V. M.**, Stanghellini, L.
The US National Gemini Office at NSF's NOIRLab
2023, NSF's NOIRLab *The Mirror*, issue #5 ([The Mirror](#) | [ADS](#))
51. Morate, D., Mahlke, M., Álvarez-Candal, A., Ederoclite, A., Vázquez Ramió, H., Siffert, B. B., **Placco, V. M.**, *Asteroids & J-Var*, **Spanish Meeting of Planetary Sciences and Solar System Exploration**, **2023** ([ADS](#))
50. Roederer, I. U., Vassh, N., Holmbeck, E. M., Mumpower, M., Surman, R., Cowan, J., Beers, T. C., Ezzeddine, R., Frebel, A., Hansen, T., **Placco, V. M.**, Sakari, C. *Evidence for transuranic fission fragments in stars*, **American Astronomical Society, AAS Meeting #241**, **2023** ([ADS](#))
49. Lang, A., Roederer, I. U., Holmbeck, E. M., HAttori, K., Beers, T. C., Ezzeddine, R., Frebel, A., Hansen, T., **Placco, V. M.**, Sakari, C. *Comparing detailed abundances of highly r-process-enhanced stars in the halo of the Milky Way to determine the masses of neutron star merger progenitors*, **American Astronomical Society, AAS Meeting #241**, **2023** ([ADS](#))
48. Merino, B., **Placco, V. M.**, Stanghellini, L.
The US NGO GMOS Data Reduction Cookbook: Version 2.0
2022, NSF's NOIRLab *The Mirror*, issue #3 ([zenodo](#) | [The Mirror](#) | [ADS](#))
47. Hernández-Fuertes, J., Ramió, H., Ederoclite, A., Infante-Sainz, R., Siffert, B., Espinosa, L., **Placco, V. M.**, Álvarez-Candal, A., Maicas, N., López-Martínez, F., Varela, J., López-Sanjuan, C., Marín-Franch, A., Cenarro, A. *JVAR Transient Discovery Report for 2021-12-14*, **Transient Name Server Discovery Report**, **2021** ([ADS](#))
- 46. Placco, V. M.**, Sneden, C., Roederer, I. U., Lawler, J. E., Den Hartog, E. A., Hejazi, N., Maas, Z., Bernath, P. *linemake: an Atomic and Molecular Line List Generator*
2021, *Research Notes of the American Astronomical Society*, vol. 5, 92 ([ADS](#) | [PDF](#))
45. Khan, H., Sakari, C., **Placco, V. M.**, *Neutron Capture Abundances in the CEMP Star BD+42 2173: A Signature of the Intermediate (i-) Process?*, **American Astronomical Society, AAS Meeting #237**, **2021** ([ADS](#))
44. Shank, D., Beers, T. C., Yoon, J., **Placco, V. M.**, *Dynamically Tagged Groups of Carbon-Enhanced Metal-Poor Stars from the AEGIS Survey*, **American Astronomical Society, AAS Meeting #237**, **2021** ([ADS](#))
43. Komater, D., Shank, D., Beers, T. C., Yoon, J., **Placco, V. M.**, *Dynamically Tagged Groups of Metal-Poor Stars from the AEGIS Survey*, **American Astronomical Society, AAS Meeting #237**, **2021** ([ADS](#))
42. Zepeda, J., Rasmussen, K., Beers, T. C., **Placco, V. M.**, *High-Resolution Spectroscopic Abundances for over 200 Metal-Poor Stars*, **American Astronomical Society, AAS Meeting #237**, **2021** ([ADS](#))
41. Hernández-Fuertes, J., Ramió, H. V., Varela, J., Ederoclite, A., Siffert, B. B., Espinosa, L., **Placco, V. M.**, Álvarez-Candal, A., Maicas, N., López-Sanjuan, C., Marín-Franch, A., Cenarro, A. J.
Transient Discovery Report for 2020-12-22, **Transient Name Server Discovery Report**, **2020** ([ADS](#))
40. Jeong, M., Lee, Y. S., Beers, T. C., **Placco, V. M.**, *Chemodynamical Properties of Extremely Metal-Poor Stars*, **American Astronomical Society, AAS Meeting #235**, **2020**
39. Yoon, J., Beers, T. C., Tian, D., **Placco, V. M.**, Lee, Y. S., *Origin and evolution of the CEMP-no stars in the Galaxy and its satellite dwarf galaxies*, **American Astronomical Society, AAS Meeting #235**, **2020**

38. The MSE Science Team (incl. [Placco, V. M.](#)), *The Detailed Science Case for the Maunakea Spectroscopic Explorer*, **2019** ([ADS Abstract](#) | [arXiv e-print](#))
37. Vázquez Ramió, H., Cristóbal-Hornillos, D., Ederoclite, A., Whitten, D. D., [Placco, V. M.](#), J-PLUS Team *Identification of RR Lyrae stars in the Javalambre Photometric Local Universe Survey*, **Proceedings of the XIII Scientific Meeting of the Spanish Astronomical Society**, **2019** ([ADS](#))
36. Yoon, J., Whitten, D. D., Beers, T. C., [Placco, V. M.](#), Lee, Y. S., Dietz, S., Gudín, D., Rasmussen, K., *Lifting the Veil on Ultra Metal-Poor Stars in the Outermost Halo*, **Rediscovering our Galaxy, Proceedings of the International Astronomical Union**, **2018**, vol. 334 ([ADS](#))
35. Whitten, D. D., [Placco, V. M.](#), Beers, T. C., Clark, S., Ederoclite, A., Mendes de Oliveira, C., *Probing Galactic Chemical Evolution with J-PLUS Photometry*, **Rediscovering our Galaxy, Proceedings of the International Astronomical Union**, **2018**, vol. 334 ([ADS](#))
34. Rasmussen, K., Beers, T. C., [Placco, V. M.](#), Yoon, J., Dietz, S., *Measurement of $[Fe/H]$ and $[C/Fe]$ for Metal-Poor Stars from the RAVE Survey*, **Rediscovering our Galaxy, Proceedings of the International Astronomical Union**, **2018**, vol. 334 ([ADS](#))
33. Dietz, S., Beers, T. C., [Placco, V. M.](#), Yoon, J., AEGIS Collaboration, *Kinematic and Chemical Analysis of AEGIS Survey Stars*, **Rediscovering our Galaxy, Proceedings of the International Astronomical Union**, **2018**, vol. 334 ([ADS](#))
32. Beers, T. C., Holmbeck, E. M., [Placco, V. M.](#), Hansen, T. T., Simon, J. D., Thompson, I., Frebel, A., Sakari, C. M., *New Highly r -Process-Enhanced Halo Stars*, **Rediscovering our Galaxy, Proceedings of the International Astronomical Union**, **2018**, vol. 334 ([ADS](#))
- 31. [Placco, V. M.](#) *Identification Of (Bright) Carbon-Enhanced Metal-Poor Stars With J-Plus Photometry*, **Early Data Release and Scientific Exploitation of the J-PLUS Survey**, **2017** ([ADS](#))**
30. Holmbeck, E. M., [Placco, V. M.](#), Beers, T. C., Frebel, A., Sakari, C., Surman, R. *RAVE J2038-0023: The First Bright r -Process Enhanced Star Identified in the RAVE Survey*, **Proceedings of the 14th Symposium on Nuclei in the Cosmos**, **2017** ([ADS](#))
29. van Weeren, R. J., Andrade-Santos, F., Dawson, W. A., Golovich, N., Lal, D. V., Kang, H., Ryu, D., Brüggen, M., Ogorean, G. A., Forman, W. R., Jones, C., [Placco, V. M.](#), Santucci, R. M., Wittman, D., Jee, M. J., Kraft, R. P., Sobral, D., Stroe, A., Fogarty, K. *Discovery of Electron Re-Acceleration at Galaxy Cluster Shocks*, **American Astronomical Society, AAS Meeting #229**, **2017**
28. Yoon, J., Beers, T. C., Dietz, S., Lee, Y. S., [Placco, V. M.](#) *Kinematics and chemistry of faint high latitude dwarf carbon stars*, **American Astronomical Society, AAS Meeting #229**, **2017**
27. Beers, T., [Placco, V. M.](#), Holmbeck, E., Hansen, T., Simon, J. *Searching for New Highly r -Process-Enhanced Stars in the Halo of the Milky Way*, **American Astronomical Society, AAS Meeting #229**, **2017**
26. Dietz, S. E., Beers, T. C., Carollo, D., Yoon, J., [Placco, V. M.](#) *Identifying CEMP-s and CEMP-no Stars within Milky Way Halo Structures*, **American Astronomical Society, AAS Meeting #229**, **2017**
25. Lentner, G., Beers, T. C., [Placco, V. M.](#), Carollo, D., Whitten, D., Denissenkov, P., Santucci, R., Rossi, S. *Structures in the Milky Way's Halo System using the Age Distribution of Field Horizontal-Branch Stars*, **American Astronomical Society, AAS Meeting #229**, **2017**
24. Rasmussen, K., Beers, T. C., [Placco, V. M.](#), Yoon, J. *The First Mass Function and Rise of Carbon in the Early Universe*, **American Astronomical Society, AAS Meeting #229**, **2017**
23. Hasselquist, S., Shetrone, M. D., Smith, V. V., Cunha, K., McWilliam, A., Holtzman, J. A., Majewski, S. R., Sobek, J., Frinchaboy, P. M., Roman-Lopes, A., Ivans, I. I., Allende-Prieto, C., [Placco, V. M.](#), Lane, R., Zasowski, G. *APOGEE Chemical Abundances of the Sagittarius Dwarf Galaxy*, **American Astronomical Society, AAS Meeting #229**, **2017**

22. Gimeno, G., Roth, K., Chiboucas, K., Hibon, P., Boucher, L., White, J., Rippa, M., Labrie, K., Turner, J., Hanna, K., Lazo, M., Pérez, G., Rogers, R., Rojas, R., **Placco, V. M.**, Murowinski, R. *On-sky commissioning of Hamamatsu CCDs in GMOS-S*, **Proceedings of the SPIE**, **2016**, vol. 9908, id. 99082S 14 pp. ([SPIE Library](#))
- 21. Placco, V. M.**, Beers, T. C., *Identifying Bright Carbon-Enhanced Metal-Poor Stars in the RAVE Catalog*, **American Astronomical Society, AAS Meeting #227, 2016**
20. Kennedy, C. R., **Placco, V. M.**, Beers, T. C., *High-resolution analysis of carbon-enhanced metal-poor stars with Magellan*, **American Astronomical Society, AAS Meeting #227, 2016**
19. Yoon, J., He, S., **Placco, V. M.**, Carollo, D., Beers, T. C., *Carbon Abundance Plateaus among Carbon-Enhanced Metal-Poor Stars*, **American Astronomical Society, AAS Meeting #227, 2016**
18. Beers, T. C., **Placco, V. M.**, Carollo, D., Santucci, R. M., Rossi, S., Lee, Y. S., Denissenkov, P., Tumlinson, J., Tissera, P., Lentner, G., *Chronography of the Milky Way's Halo System with Field Blue Horizontal-Branch Stars*, **American Astronomical Society, AAS Meeting #227, 2016**
17. Roth, K., Gimeno, G., Chiboucas, K., Hibon, P., Gomez, P. L., **Placco, V. M.**, *Commissioning new Hamamatsu CCDs for GMOS-S*, **American Astronomical Society, AAS Meeting #225, 2015**
16. Beers, T. C., Carollo, D., Keller, S., Casey, A., Lee, Y. S., **Placco, V. M.**; Skymapper Team, Aegis Collaboration, *Kinematics of the AEGIS Spectroscopic Sample of Milky Way Halo- and Disk-System Stars from SkyMapper*, **American Astronomical Society, AAS Meeting #225, 2015**
15. Lopes de Oliveira, R., **Placco, V. M.**, *Unveiling optical and X-ray properties of the high mass X-ray binary XMMU J054134.7-682550*, **Revista Mexicana de Astronomía y Astrofísica (Serie de Conferencias)**, **2014**, vol. 44, pp. 158-158 ([ADS](#))
14. Lopes de Oliveira, R., **Placco, V. M.**, *Eighteen years of the life of the Be/X-ray binary XMMUJ054134.7-682550*, **The X-ray Universe, 2014**
13. Chene, A. N., Padzer, J., Barrick, G., Anthony, A., Benedict, T., Duncan, D., Gigoux, P., Kleinman, S., Malo, L., Martioli, E., Moutou, C., **Placco, V. M.**; Reshetovand, V., Rhee, J., Roth, K., Schiavon, R., Tollestrup, E. V., Vermeulen, T. A., White, J., Wooff, R., *GRACES: Gemini remote access to CFHT ESPaDOnS spectrograph through the longest astronomical fiber ever made: experimental phase completed*, **Proceedings of the SPIE**, **2014**, vol. 9151, id. 915147 16 pp. ([arXiv e-print](#))
12. Beers, T. C., Lee, Y. S., **Placco, V. M.**; Carollo, D., Christlieb, N., Fiorenza, S., *Determination of Physical Parameter Estimates for Metal-Poor Stars from the HK and HES Surveys*, **American Astronomical Society, AAS Meeting #222, 2013**
11. Beers, T. C., **Placco, V. M.**; Rossi, S., Christlieb, N., Kennedy, C., *A New Survey for Carbon-Enhanced Metal-Poor Stars in the Halo(es) of the Galaxy*, **American Astronomical Society, AAS Meeting #221, 2013**
- 10. Placco, V. M.**; Beers, T. C., Rossi, S., Kennedy, C., Christlieb, N., Lee, Y. S., *Making Good Use of Bad Weather: Finding Extremely Metal-Poor Stars in the Clouds*, **Astronomical Society of the Pacific, Conference Proceedings**, **2012**, vol. 458 p.77 ([ADS](#))
- 9. Placco, V. M.**; Rossi, S., Beers, T. C., Lucatello, S., *Abundance Patterns Among Very Metal-Poor Stars in the Halo of the Galaxy: A Statistical Approach*, **Proceedings of the International Astronomical Union**, **2010**, vol. 262, p. 412-413 ([ADS](#))
- 8. Placco, V. M.**; Kennedy, C. R.; Rossi, S., Beers, T. C., Christlieb, N., Sivarani, T., *A Search for Unrecognized Carbon-Enhanced Metal-Poor Stars*, **Proceedings of the International Astronomical Union**, **2010**, vol. 265, p. 132-133 ([ADS](#))
7. Kennedy, C. R., Sivarani, T., Beers, T. C., Rossi, S., **Placco, V. M.**, Johnson, J., Masseron, T., *Near-IR Spectroscopy of CEMP Stars with SOAR/OSIRIS*, **Proceedings of the International Astronomical Union**, **2010**, vol. 265, p. 126-127 ([ADS](#))

6. Kennedy, C., Beers, T. C., Nordstrom, B., [Placco, V. M.](#); Rossi, S., Sivarani, T., *CNO Abundances in Metal-Poor Stars*, **Proceedings of the 11th Symposium on Nuclei in the Cosmos**, **2010** ([ADS](#))
5. Kennedy, C. R., Sivarani, T., Beers, T. C., Rossi, S., [Placco, V. M.](#), Johnson, J., Masseron, T., *Near-IR Spectroscopy of CEMP Stars with OSIRIS*, **American Astronomical Society, AAS Meeting #213**, **2009**
4. Rossi, S., [Placco, V. M.](#); Beers, T. C., Marsteller, B., Kennedy, C. R., Sivarani, T., Masseron, T., Plez, B., *Refined Estimates of Carbon Abundances for Carbon-Enhanced Metal-Poor Stars*, **First Stars III Conference. AIP Conference Proceedings**, **2008**, vol. 990, pp. 154-156 ([ADS](#))
3. Rossi, S., [Placco, V. M.](#); Beers, T. C., Kennedy, C. R., Marsteller, B., *Refined Estimates of $[Fe/H]$ and $[C/Fe]$ in Metal-Poor Stars*, **Proceedings of the 10th Symposium on Nuclei in the Cosmos**, **2008** ([ADS](#))
2. Kennedy, C. R., Sivarani, T., Beers, T. C., Lee, Y. S., Rossi, S., [Placco, V. M.](#), *Near-IR Observations Of CEMP Stars With OSIRIS*, **American Astronomical Society, AAS Meeting #211**, **2007**
1. Lichtenthäler, R., Lépine-Szily, A., Guimarães, V., Perego, C., [Placco, V. M.](#), Camargo, O., Denke, R., de Faria, P., Benjamim, E., Kuramoto, R., Added, N., Lima, G., Hussein, M., Kolata, J., Arazi, A., *Radioactive Ion Beams in Brazil (RIBRAS)*, **Exotic Nuclei 2004. Proceedings of the International Symposium**, **2005**. ([ADS](#))

Telescope time allocations

Approved observing projects: 188

Total awarded: 6919.32 hours

*does not include time allocated through university partnerships

Principal Investigator

Approved observing projects: 51

Total awarded: 1771.80 hours

51. 2023B - Gemini South - GS-2023B-FT-301 (Fast Turnaround): 2.25 hours
50. 2023A - Gemini South - GS-2023A-SV-101 (Band 1): 4.0 hours
49. 2023A - Gemini South - GS-2023A-Q-407 (Band 4): 40.0 hours
48. 2022A - Gemini South - GS-2022A-Q-406 (Band 4): 30.0 hours
47. 2022A - CTIO Blanco - 2022A-210002: 5.0 nights
46. 2021A - Gemini South - GS-2021A-Q-419 (Band 4): 40.0 hours
45. 2021A - CTIO Blanco - 2021A-0000: 5.0 nights
44. 2020A - CTIO Blanco - 2020A-0032: 5.0 nights
43. 2019B - CTIO Blanco - 2019B-0069: 5.0 nights
42. 2019A - Gemini South - GS-2019A-Q-408 (Band 4): 21.0 hours
41. 2019A - Gemini North - GN-2019A-Q-402 (Band 4): 27.0 hours
40. 2018B - Gemini North - GN-2018B-Q-403 (Band 4): 20.0 hours
39. 2018B - Gemini South - GS-2018B-Q-402 (Band 4): 20.0 hours
38. 2018A - Gemini South - GS-2018A-Q-402 (Band 4): 30.0 hours
37. 2017B - Gemini North - GN-2017B-Q-84 (Band 4): 39.0 hours
36. 2017A - Gemini South - GS-2017A-FT-3: 5.5 hours
35. 2017A - KPNO Mayall - 2017A-0295: 7.0 nights
34. 2016B - Gemini North - GN-2016B-Q-85 (Band 4): 50.0 hours
33. 2016B - Gemini South - GS-2016B-Q-86 (Band 4): 50.0 hours
32. 2016A - Gemini South - GS-2016A-Q-107 (Band 4): 50.0 hours
31. 2015B - Gemini North - GN-2015B-Q-100 (Band 4): 30.0 hours
30. 2015B - Gemini South - GS-2015B-Q-104 (Band 4): 50.0 hours
29. 2015B - ESO/NTT - 096.D-0018(A): 5.0 nights
28. 2015A - Gemini North - GN-2015A-Q-401 (Band 4): 30.0 hours
27. 2015A - Gemini South - GS-2015A-Q-205 (Band 4): 50.0 hours
26. 2015A - ESO/NTT - 095.D-0202(A): 4.0 nights
25. 2015A - KPNO Mayall - 2015A-0071: 6.0 nights
24. 2015A - SOAR - 2015A-0071: 5.0 nights
23. 2014B - Gemini South - GS-2014B-Q-85 (Band 4): 30.0 hours
22. 2014B - Gemini North - GN-2014B-Q-102 (Band 4): 30.0 hours
21. 2014A - Gemini South - GS-2014A-Q-92 (Band 4): 33.3 hours
20. 2014A - Gemini North - GN-2014A-Q-101 (Band 3): 16.7 hours

19. 2014A - Gemini North - GN-2014A-Q-105 (Band 4): 33.3 hours
18. 2013B - Gemini South - GS-2013B-Q-89 (Band 4): 25.0 hours
17. 2013B - Gemini North - GN-2013B-Q-105 (Band 4): 25.0 hours
16. 2013B - SOAR - SO2013B-001: 30.0 hours
15. 2013A - SOAR - SO2013A-018: 34.0 hours
14. 2012B - Gemini South - GS-2012B-Q-65 (Band 3): 10.0 hours – queue
13. 2012B - Gemini South - GS-2012B-Q-84 (Band 4): 70.0 hours – queue
12. 2012B - Gemini North - GN-2012B-Q-284 (Band 4): 70.0 hours – queue
11. 2012B - ESO/NTT - 090.D-0275(A): 4 nights – classical
10. 2012B - SOAR - SO2012B-001: 24.0 hours – remote
9. 2012A - Gemini South - GS-2012A-Q-76 (Band 3): 6.0 hours – queue
8. 2012A - ESO/NTT - 089.D-0331(A): 4 nights – classical
7. 2012A - SOAR - SO2012A-003: 24.0 hours – remote
6. 2011B - ESO/NTT - 088.D-0344(A): 4 nights – classical
5. 2011B - SOAR - SO2011B-002: 24.0 hours – remote
4. 2011A - Gemini South - GS-2011A-Q-86 (Band 4): 4.0 hours – queue
3. 2011A - Gemini North - GN-2011A-Q-88 (Band 3): 1.3 hours – queue
2. 2011A - Gemini North - GN-2011A-Q-122 (Band 4): 6.7 hours – queue
1. 2011A - SOAR - SO2011A-010: 17.0 hours – remote

Co-Investigator

Approved observing projects: 137

Total awarded: 5147.52 hours

137. 2024A - CTIO/Blanco - 2024A-646244 (survey): 85.00 hours
136. 2024A - Gemini South - GS-2024A-Q-109 (Band 1): 3.80 hours
135. 2024A - Gemini South - GS-2024A-Q-112 (Band 1 - GT): 50.00 hours
134. 2024A - Gemini South - GS-2024A-Q-130 (Band 1): 13.00 hours
133. 2024A - Gemini South - GS-2024A-Q-206 (Band 2): 21.20 hours
132. 2024A - Gemini South - GS-2024A-Q-225 (Band 2): 16.00 hours
131. 2024A - Gemini South - GS-2024A-Q-233 (Band 2): 1.10 hours
130. 2024A - Gemini South - GS-2024A-Q-324 (Band 3): 4.50 hours
129. 2024A - Gemini South - GS-2024A-Q-333 (Band 3): 3.41 hours
128. 2023B - CTIO/Blanco - 2023B-646244 (survey): 65.00 hours
127. 2023B - Southern African Large Telescope - 2023-2-SCI-005: 14.5 hours
126. 2023B - Gemini South - GS-2023B-FT-210 (Fast Turnaround): 6.84 hours
125. 2023B - Gemini South - GS-2023B-Q-107 (Band 1): 20.00 hours
124. 2023B - Gemini South - GS-2023B-Q-309 (Band 3): 4.09 hours
123. 2023B - Gemini South - GS-2023B-Q-322 (Band 3): 5.06 hours
122. 2023A - Southern African Large Telescope - 2023-1-SCI-007: 8.85 hours
121. 2023A - Gemini South - GS-2023A-Q-412 (Band 4): 42.00 hours

120. 2022B - Gemini North - GN-2022B-Q-211 (Band 2): 11.40 hours
119. 2022B - Gemini South - GS-2022B-Q-227 (Band 2): 7.10 hours
118. 2022B - Gemini South - GS-2022B-Q-318 (Band 3): 10.96 hours
117. 2022B - Southern African Large Telescope - 2022-2-SCI-011: 20.0 hours
116. 2022A - SOAR - 2022A-001: 8 hours
115. 2022A - SOAR - 2022A-006: 40 hours
114. 2022A - Subaru - KR-2022A-008: 10.00 hours
113. 2022A - Gemini South - GS-2022A-Q-128 (Band 1): 1.20 hours
112. 2022A - Gemini South - GS-2022A-Q-132 (Band 1): 4.60 hours
111. 2022A - Gemini South - GS-2022A-Q-234 (Band 2): 3.10 hours
110. 2022A - Gemini South - GS-2022A-Q-233 (Band 2): 11.60 hours
109. 2022A - Gemini South - GS-2022A-Q-238 (Band 2): 4.00 hours
108. 2022A - Gemini South - GS-2022A-Q-322 (Band 3): 5.20 hours
107. 2022A - Gemini South - GS-2022A-Q-323 (Band 3): 2.20 hours
106. 2022A - Gemini South - GS-2022A-Q-325 (Band 3): 9.40 hours
105. 2021B - Gemini North - GN-2021B-Q-111 (Band 1): 9.70 hours
104. 2021B - Gemini South - GS-2021B-Q-127 (Band 1): 2.20 hours
103. 2021B - Gemini South - GS-2021B-Q-232 (Band 2): 6.10 hours
102. 2021B - Gemini South - GS-2021B-Q-130 (Band 1): 3.60 hours
101. 2021B - Gemini South - GS-2021B-Q-321 (Band 3): 16.60 hours
100. 2021A - Gemini North - GN-2021A-FT-209 (Band 1): 2.20 hours
99. 2021A - Gemini North - GN-2021A-FT-205 (Band 1): 3.00 hours
98. 2021A - Gemini North - GN-2021A-Q-111 (Band 1): 14.20 hours
97. 2021A - Gemini South - GS-2021A-Q-230 (Band 2): 10.00 hours
96. 2021A - SOAR - 2021A-007: 40 hours
95. 2020A - McDonald 2.7m - McD20-1-2.7-7: 7.0 nights
94. 2019B - Gemini North - GN-2019B-Q-403 (Band 4): 9.40 hours
93. 2019B - McDonald 2.7m - McD19-3-2.7-1: 7.0 nights
92. 2019B - SOAR - 2019B-0013: 26 hours
91. 2019A - Gemini North - GN-2019A-Q-309 (Band 3): 22.73 hours
90. 2019A - McDonald 2.7m - McD19-1-2.7-3: 17.0 nights
89. 2019A - McDonald 2.1m - McD19-1-2.7-1: 5.0 nights
88. 2018B - Gemini North - GN-2018B-Q-122 (Band 1): 10.0 hours
87. 2018B - Gemini North - GN-2018B-Q-316 (Band 3): 25.00 hours
86. 2018B - Gemini South - GS-2018B-Q-315 (Band 3): 47.27 hours
85. 2018B - SOAR - 2018B-0010: 26 hours
84. 2018A - Gemini North - GN-2018A-Q-403 (Band 4): 89.10 hours
83. 2018A - Gemini South - GS-2018A-Q-406 (Band 4): 7.90 hours
82. 2018A - LCO/Magellan Telescope - Carnegie Time: 2 nights
81. 2018A - LCO/duPont Telescope - Carnegie Time: 18 nights

80. 2018A - Apache Point Observatory - UW08: 5.0 nights
79. 2018A - LCO/Magellan Telescope - Chilean Time: 3 nights
78. 2018A - SOAR - 2018A-0021: 36 hours
77. 2018A - McDonald 2.7m - McD18-1-2.7-3: 7.0 nights
76. 2017B - LCO/Magellan Telescope - Michigan Time: 2.5 nights
75. 2017B - Gemini North - GN-2017B-Q-18 (Band 1): 10.2 hours
74. 2017B - Gemini North - GN-2017B-FT-7: 6.28 hours
73. 2017B - Gemini North - GN-2017B-Q-75 (Band 3): 41.82 hours
72. 2017B - Gemini North - GN-2017B-Q-79 (Band 4): 63.64 hours
71. 2017B - Gemini South - GS-2017B-Q-75 (Band 3): 20.91 hours
70. 2017B - Gemini South - GS-2017B-Q-84 (Band 4): 107.82 hours
69. 2017A - Southern African Large Telescope - 2017-1-MLT-012: 55.6 hours
68. 2017A - Gemini North - GN-2017A-Q-82 (Band 3): 202.0 hours
67. 2017A - Gemini South - GS-2017A-Q-86 (Band 3): 142.5 hours
66. 2017A - ESO/NTT - 099.D-0428: 5.0 nights
65. 2017A - LCO/Magellan Telescope - Carnegie Time: 3 nights
64. 2017A - LCO/duPont Telescope - Carnegie Time: 19 nights
63. 2017A - SOAR - 2017A-0016: 40 hours
62. 2016B - Gemini North - GN-2016B-Q-77 (Band 3): 6.4 hours
61. 2016B - Gemini South - GS-2016B-Q-81 (Band 3): 32.3 hours
60. 2016B - ESO/NTT - 098.D-0434: 4.0 nights
59. 2016B - Hubble Space Telescope - Cycle 24 - HST-GO-14765: 40 orbits
58. 2016B - LCO/duPont Telescope - Carnegie Time: 5 nights
57. 2016A - ESO/NTT - 097.D-0196: 7.0 nights
56. 2016A - Apache Point Observatory - UW07: 2.5 nights
55. 2016A - Gemini North - GN-2016A-Q-17 (Band 1): 9.8 hours
54. 2016A - Gemini North - GN-2016A-Q-75 (Band 3): 79.4 hours
53. 2016A - Gemini South - GS-2016A-Q-76 (Band 3): 74.0 hours
52. 2016A - SOAR - 2016A-0019: 4.0 nights
51. 2015B - Southern African Large Telescope - 2015-2-SCI-056: 117.8 hours
50. 2015B - Hubble Space Telescope - Cycle 23 - HST-GO-14231: 18 orbits
49. 2015B - Gemini North - GN-2015B-Q-86 (Band 3): 26.5 hours
48. 2015B - Gemini South - GS-2015B-Q-71 (Band 3): 42.9 hours
47. 2015B - SOAR - 2015B-0020: 5.0 nights
46. 2015A - ESO/VLT - 095.D-0504(A): 30.0 hours
45. 2015A - Gemini North - GN-2015A-Q-76 (Band 3): 45.8 hours
44. 2015A - Gemini South - GS-2015A-Q-77 (Band 3): 42.8 hours
43. 2015A - Gemini South - GS-2015A-Q-92 (Band 4): 26.0 hours
42. 2014B - ESO/VLT - DDT293.D-5036(A): 2.4 hours
41. 2014B - Gemini South - GS-2014B-Q-67 (Band 3): 55.0 hours

40. 2014B - Gemini North - GN-2014B-Q-85 (Band 3): 55.0 hours
39. 2014B - KPNO Mayall - 2014B-0231: 3.0 nights
38. 2014B - SOAR - 2014B-0231: 3.0 nights
37. 2014A - Gemini South - GS-2014A-Q-88 (Band 3): 66.7 hours
36. 2014A - KPNO Mayall - 2014A-0323: 8.0 nights
35. 2013B - KPNO Mayall - 2013B-0046: 6.5 nights
34. 2013B - Gemini South - GS-2013B-Q-75 (Band 3): 50.0 hours
33. 2013B - Gemini North - GN-2013B-Q-81 (Band 3): 50.0 hours
32. 2013B - SOAR - SO2013B-S102: 17.0 hours (long term)
31. 2013B - ESO/NTT - 092.D-0308(A): 6 nights
30. 2013B - McDonald 2.1m - McD13-3: 5 nights
29. 2013B - LNA/Brazil - 2013B-P012: 6 nights
28. 2013B - NOT (Nordic Optical Telescope) - 48-031: 3.5 nights
27. 2013A - Gemini North - GN-2013A-Q-113 (Band 4): 54.5 hours
26. 2013A - Gemini South - GS-2013A-Q-91 (Band 3): 54.6 hours
25. 2013A - Gemini South - GS-2013A-Q-95 (Band 4): 10.9 hours
24. 2013A - ESO/NTT - 091.D-0292(A): 6 nights
23. 2013A - LNA/Brazil - 2013A-P030: 4 nights
22. 2013A - SOAR - SO2013A-LP2: 17.0 hours (long term)
21. 2013A - NOT (Nordic Optical Telescope) - 47-003: 3.0 nights
20. 2012B - NOT (Nordic Optical Telescope) - 46-011: 2.5 nights
19. 2012B - ESO/VLT (X-Shooter) - 090.D-0321(A): 12 hours
18. 2012B - LCO/Magellan - MAG/12B/9: 2 nights
17. 2012B - AAO/AAT - AAT/12B/032: 6 nights
16. 2012B - SOAR - SO2012B-005: 8.0 hours (long term)
15. 2012A - Gemini South - GS-2012A-Q-81 (Band 4): 74.0 hours
14. 2012A - AAO/AAT - AAT/12A/011: 4 nights
13. 2012A - LCO/Magellan - MAG/12A/7: 2 nights
12. 2012A - SOAR - SO2012A-002: 16.0 hours
11. 2011B - Gemini South - GS-2011B-Q-91 (Band 4): 75.0 hours
10. 2011B - SOAR (SO2011B-008): 24.0 hours
9. 2011A - Gemini South - GS-2011A-Q-85 (Band 3): 63.4 hours
8. 2011A - CFHT - CF2011A-002: 13.9 hours
7. 2010B - CFHT - 10BB05A/10BB99B: 13.9 hours
6. 2010A - Gemini South - GS-2010A-Q-78 (Band 4): 25.0 hours
5. 2009B - SOAR - SO2009B-004: 17.0 hours
4. 2009A - SOAR - SO2009A-0249: 6 nights
3. 2009A - SOAR - SO2009A-014: 32.0 hours
2. 2008A - SOAR - SO2008A-006: 3 nights
1. 2007B - SOAR - SO2007B-006: 3 nights

Press releases, articles, and media resources

2023

Phys.org

[Ancient stars made extraordinarily heavy elements, researchers find](#)

Indiana Daily Student

[IU professor provides insight into evolution of stars](#) (external opinion)

2022

Hawaii Tribune-Herald

[Cloud of matter could be remains of oldest stars](#) (external opinion)

Space.com

[Stunning time-lapse videos show the Super Flower Blood Moon in bloom](#)

digg

[Footage From Gemini Observatory's Fisheye Lens Captures A Stunning Glimpse Of The Milky Way](#)

Associated Press

[Twinkle, twinkle giant star, astronomers see how far you are](#) (external opinion)

2021

NBC News

[An ancient star casts new light on the birth of the universe](#)

Phys.org

[Reseachers detect a new ultra-metal-poor star](#)

NOIRLab Stories

[Ultra Metal-Poor Star Discovery](#)

Revista FAPESP (featured article)

[Star Fossil](#)

S-PLUS Press Release

[Astronomers discover an ultra metal-poor star that challenges models for the evolution of the first stars](#)

India Education Diary

[University Of São Paulo: Astronomers Discover Star That Challenges Current Models Of Evolution Of The Universe](#)

Jornal da USP (in Portuguese)

[Astrônomos descobrem estrela que desafia modelos atuais de evolução do Universo](#)

Ravista FAPESP (in Portuguese)

[Fóssil Estelar](#)

Observatório Nacional (in Portuguese) - [Audio interview](#)

[Astrônomos descobrem estrela que desafia modelos atuais de evolução do Universo](#)

Revista Planeta (in Portuguese)

[Achada estrela que desafia modelos atuais de evolução do universo](#)

tilt UOL (in Portuguese)

["Ultrapobre": brasileiros encontram uma das estrelas mais raras do universo](#)

Sputnik News Brasil (in Portuguese)

[Detectada estrela recordista em carência metálica que pode explicar evolução inicial do Universo](#)

Hypeness (in Portuguese)

[Telescópio com tecnologia brasileira localiza estrela mais velha que o Sol](#)

Notícias da Universidade Federal de Santa Catarina (in Portuguese)

[Projeto internacional de astronomia com participação da UFSC descobre estrela rara](#)

Agência Brasil - Rádio Nacional (in Portuguese - with audio interview)

[Universo: cientistas descobrem estrela rara e considerada ultrapobre](#)

CAPES - Ministério da Educação (in Portuguese)

[Estrela rara desafia lógica da astrofísica](#)

TEKCRISPY (in Spanish)

[La humanidad podría haber descubierto una de las estrellas más antiguas del universo](#)

NOIRLab Stories (in Spanish)

[Descubrimiento de una estrella ultra pobre en metal](#)

2020

Phys.org (online)

[Peculiar chemical abundance pattern detected in the star RAVE J183013.5-455510](#)

Inside Higher Ed (online)

[The rise of the remote Ph.D. defense](#)

Gemini Observatory - [GeminiFocus](#) 2019 Year In Review (online)

[Making Good Use of Bad Weather: Finding Metal-poor Stars Through the Clouds](#)

2019

MIT News (online)

[Explosions of universe's first stars spewed powerful jets](#)

Gemini Observatory News (online)

[Making Good Use of Bad Weather: Finding Metal-poor Stars Through the Clouds](#)

Gemini Observatory - [GeminiFocus](#) April 2019 Lead Science Article (online)

[Making Good Use of Bad Weather: Finding Metal-poor Stars Through the Clouds](#)

2018

Notre Dame Science - Department of Physics News (online)

[Summertime Stargazing event draws large crowd](#)

Notre Dame Stories (online)

[Heavy Metals](#)

2017

Revista FAPESP (in Portuguese - online)

[Fonte de ouro e régua do universo](#)

Agência FAPESP (in Portuguese - online)

[Nova fonte de ondas gravitacionais é observada](#)

Notre Dame News (online)

[Students in right place, right time witness first-ever detected neutron star collision](#)

Notre Dame College of Science News (online)

[Astrophysics graduate students witness first-ever detected neutron star collision](#)

Agência FAPESP (in Portuguese - online)

[Estudo detecta elétrons duplamente acelerados no choque de aglomerados de galáxias](#)

École Polytechnique News (online)

[The inaugural issue of Nature Astronomy features the work of F. Andrade-Santos](#)

Jornal da USP (in Portuguese - online)

[*Cientistas descobrem poderosa colisão cósmica dupla*](#)

Folha de São Paulo (in Portuguese - online)

[*Quando aglomerados de galáxias colidem e um buraco negro gigante entra no meio da história*](#)

Nature Astronomy (online - issue cover)

[*The case for electron re-acceleration at galaxy cluster shocks*](#)

Chandra X-ray Observatory Blog (online)

[*The Discovery of Particle Re-acceleration in a Galaxy Cluster Collision*](#)

Notre Dame News (online)

[*Notre Dame astrophysicist confirms source of galaxy collision*](#)

2016

Nature Physics (online - issue cover)

[*The age structure of the Milky Way's halo*](#)

Notre Dame News (online)

[*Second-generation stars identified, giving clues about their predecessors*](#)

Science Alert (online)

[*Astronomers have created the most detailed age map of the Milky Way yet*](#)

Universe Today (online)

[*Best picture yet of Milky Way's formation 13.5 billion years ago*](#)

Notre Dame News (online)

[*Detailed age map shows how Milky Way came together*](#)

Daily Mail (online)

[*How the Milky Way formed: Stunning 3D maps show how 130,000 stars came together 13.5 billion years ago*](#)

Daily Mail (online)

[*Graphic shows age structure of the Milky Way's halo*](#)

Astrobites (online)

[*Our halo is getting younger, spatially speaking*](#)

UPI (online)

[*New map details formation of the Milky Way galaxy*](#)

International Business Times (online)

[*How Did The Milky Way Form? New Chronographic Map Provides Answers*](#)

Phys.org (online)

[*Detailed age map shows how Milky Way came together*](#)

Reddit Journal of Science (online)

[*Detailed age map shows how Milky Way came together*](#)

Science Daily (online)

[*Detailed age map shows how Milky Way came together*](#)

Laboratory Equipment (online)

[*Detailed age map shows how Milky Way came together*](#)

Geek Journal (online)

[*Detailed age map shows how Milky Way came together*](#)

AboNewsCast (online)

[*Detailed age map shows how Milky Way came together*](#)

Science Newsline (online)

[*Detailed age map shows how Milky Way came together*](#)

MSU Today (online)

[*Astronomers pinpoint how Milky Way Galaxy was formed*](#)

Ancient Code (online)

[*How the Milky Way formed: Awesome 3D map shows how 130,000 stars merged*](#)

Astro Watch (online)

[*Detailed Age Map Shows How Milky Way Came Together*](#)

Science Bulletin (online)

[*Detailed Age Map Shows How Milky Way Came Together*](#)

Science Blog (online)

[*Astronomers pinpoint how Milky Way Galaxy was formed*](#)

EurekAlert! (online)

[*Detailed Age Map Shows How Milky Way Came Together*](#)

nano werk! (online)

[*Detailed Age Map Shows How Milky Way Came Together*](#)

Life Science Network (online)

[*The age structure of the Milky Way's halo*](#)

Jornal da USP (in Portuguese - online)

[*Astrônomos brasileiros mapeiam estrutura de idades do halo da Via Láctea*](#)

Agência FAPESP (in Portuguese - online)

[*Pesquisadores mapeiam a distribuição cronológica dos astros da Via Láctea*](#)

Revista Galileu (in Portuguese - online)

[*Brasileiros confirmam que estrelas na borda da Via Láctea são as mais novas*](#)

O Povo (in Portuguese - online)

[*Como os astros da Via Láctea se distribuem?*](#)

Space Today TV (in Portuguese - online)

[*Como a Via Láctea Se Formou*](#)

Público (in Spanish - online)

[*Así se formó la Vía Láctea*](#)

Geofísica Brasil (in Portuguese - online)

[*IAG-USP mapeia distribuição cronológica dos astros da Via Láctea*](#)

Planeta Universitário (in Portuguese - online)

[*Pesquisadores mapeiam a distribuição cronológica dos astros da Via Láctea*](#)

News Rondônia (in Portuguese - online)

[*Pesquisadores mapeiam a distribuição cronológica dos astros da Via Láctea*](#)

JINA-CEE Newsletter (online - Page 2)

[*Evidence for Multiple Progenitors of CEMP-no Stars*](#)

Space Daily (online)

[*Relics of the Milky Way's first generation of stars*](#)

University of Michigan News (online)

[*Relics of the Milky Way's first generation of stars*](#)

Notre Dame News (online)

[*Astrophysicists release new study of one of the first stars*](#)

Newswise (online)

[*Astrophysicists release new study of one of the first stars*](#)

EurekAlert! - AAAS (online)

[*Astrophysicists release new study of one of the first stars*](#)

Scientia (online - page 13)

[*Physics team creates Milky Way galaxy map*](#)

JINA-CEE Newsletter (online)

[*Discovery of the Brightest Ultra Metal-Poor Star*](#)

Agência FAPESP (in Portuguese - online)

[*Via Láctea cresceu de dentro para fora*](#)

Exame.com (in Portuguese - online)

[*Via Láctea cresceu de dentro para fora, diz pesquisa*](#)

Planeta Universitário (in Portuguese - online)

[*Via Láctea cresceu de dentro para fora*](#)

European Southern Observatory Photo Press Release (online)

[*ESO Telescopes Spy a Rare Relic*](#)

Notre Dame News (online)

[*Newly discovered star offers opportunity to explore origins of first stars in the early universe*](#)

Space Daily (online)

[*How the first stars sprung to life in early universe*](#)

Astronomy Now UK (online)

[*Ancient star provides insight into stellar origins in early universe*](#)

Empresa Brasil de Comunicação (in Portuguese - online)

[*História da Via Láctea ganha novos capítulos com descoberta de estrela por equipe da USP*](#)

Correio Braziliense (in Portuguese - online)

[*Astrônomos brasileiros identificam estrela rara na Via Láctea*](#)

Globo.com (in Portuguese - online)

[*Professor da USP descobre estrela tão antiga quanto o Universo*](#)

G1.globo.com (in Portuguese - online)

[*Astrônomos identificam estrela antiga e rara na Via Láctea*](#)

Agência USP de Notícias (in Portuguese - online)

[*Estrela traz evidências do início da Via Láctea*](#)

Universidade de São Paulo - Notícias (in Portuguese - online)

[*Equipe liderada pela USP identifica estrela chave para entender o início da Via Láctea*](#)

Agência FAPESP (in Portuguese - online)

[*Astrônomos brasileiros identificam estrela rara na Via Láctea*](#)

Folha de São Paulo (in Portuguese - online)

[*Astrônomos encontram uma estrela quase tão velha quanto o próprio Universo*](#)

JINA-CEE Newsletter (online)

[*Hubble Space Telescope Near-Ultraviolet Spectroscopy of Bright CEMP-s Stars*](#)

JINA-CEE Newsletter (online)

[*The First Age Map of the Galactic Halo*](#)

2015

Jornal da USP (in Portuguese - online)

[*Mapa permite estimar idade dos componentes da Via Láctea*](#)

UOL Notícias (in Portuguese - online)

[*Mapa permite estimar idade das estrelas da Via Láctea*](#)

Astronomy & Astrophysics Highlights (online)

[*2MASS J18082002–5104378: The brightest \(\$V=11.9\$ \) ultra metal-poor star*](#)

The Observer (online and print)

[*Galactic archeologists create the first map of Milky Way's stellar halo*](#)

Best Education News (online)

[*Astrophysicists produce the first age map of the halo of the Milky Way*](#)

National Science Foundation - News from the Field (online)

[*Astrophysicists produce the first age map of the halo of the Milky Way*](#)

Notre Dame News (online)

[*Astrophysicists produce the first age map of the halo of the Milky Way*](#)

The Watchers (online)

[*The first age map of the Milky Way's halo produced*](#)

Red Orbit (online)

[*First-ever Milky Way age map shows oldest stars clustered in center*](#)

Headlines and Global News (online)

[*Milky Way Age Map Created For The First Time, Confirming Past Assumptions In Astrophysics*](#)

Global News Connect (online)

[*Astrophysicists furnish a initial age map of a Halo of a Milky Way*](#)

Science World Report (online)

[*First Ever Age Map of the Milky Way Galaxy Reveals History of the System*](#)

Media INAF (in Italian - online)

[*Quanto è vecchia la Via Lattea?*](#)

The Observer (online and print)

[*"Our Universe Revealed" lecture looks at chemical composition of stars*](#)

2014

JINA-CEE Newsletter (online)

[*Seven New Stars with \$\[Fe/H\]<-3\$ – Six of them CEMP-no*](#)

Phys.org (online)

[*Galactic archaeologists uncover new insights into the formation of the earliest stars and galaxies*](#)