

Curriculum Vitae

Athanasios Psaltis, Ph.D.

Postdoctoral Research Scholar

Triangle Universities Nuclear Laboratory
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Research Interests

nuclear astrophysics • experimental studies with stable and radioactive ion beams • nuclear sensitivity studies • thermonuclear reaction networks • evaluation of thermonuclear reaction rates • radiative capture reactions with recoil separators • charged-particle spectroscopy • in-beam and activation γ -ray spectroscopy

Education

McMaster University • Hamilton, ON, Canada
Ph.D. in Physics

September 2015 – August 2020


Advisor: Prof. [Alan Chen](#)

Thesis title: "Radiative alpha capture on ^7Be with DRAGON at vp-process nucleosynthesis energies" 

National and Kapodistrian University of Athens • Athens, Greece
B.Sc. in Physics

October 2010 – September 2014

Advisor: Assoc. Prof. [Theodoros Mertzimekis](#)

Minored in astrophysics. Thesis title: "Experimental studies of cross sections and angular distributions of $^{112}\text{Cd}(p,\gamma)^{113}\text{In}$ with application in nucleosynthesis" 

Research Positions

Triangle Universities Nuclear Laboratory – Postdoctoral Research Scholar
Durham, NC, USA

January 2023 – Present

Currently collaborating with Professors [Richard Longland](#) and [Christian Iliadis](#) on experimental and theoretical nuclear astrophysics. Conducting research in primordial nova nucleosynthesis, performing transfer reaction measurements using the Enge magnetic spectrograph, and contributing to the evaluation of thermonuclear reaction rates.

Technische Universität Darmstadt – Postdoctoral Researcher
Darmstadt, Germany

September 2020 – January 2023

Collaborated with Professor [Almudena Arcones](#) on investigating nuclear and astrophysical uncertainties in core-collapse supernovae and neutron star mergers through extensive impact studies using reaction networks.

McMaster University – Research Assistant
Hamilton, ON, Canada

September 2015 – August 2020

Worked with Prof. [Alan Chen](#), engaging in experiments at prominent nuclear physics facilities globally as a visiting researcher, including TRIUMF, RIKEN, NSCL, Argonne National Laboratory, TUNL, and Maier-Leibnitz-Laboratorium.

Los Alamos National Laboratory – Visiting Graduate Researcher May 2019
Los Alamos, NM, USA

Collaborated with Drs. **Samuel Jones** and Chris Fryer on reaction network calculations for the vp-process with **NuGrid**. Code development on NuGrid's NuPPN nuclear reaction network to include neutrino reactions.

TRIUMF – Visiting Graduate Researcher June 2017 – September 2017
Vancouver, BC, Canada

Collaborated with the **DRAGON group** during the preparation of my Ph.D. thesis project. Additionally, assisted in other experiments conducted by the DRAGON/TUDA group.

N.C.S.R. “Demokritos” – Undergraduate Researcher November 2013 – March 2014
Athens, Greece

Engaged in research at the **Tandem Accelerator Lab** of the Institute of Nuclear and Particle Physics for my undergraduate thesis. Additionally, assisted in two additional nuclear astrophysics experiments.

NuSTRAP - University of Athens – Database Contributor November 2011 – September 2015
Athens, Greece

Completion and upgrade of the **Electromagnetic Moment Resources online database**. The database is currently hosted by the International Atomic Energy Agency (IAEA) **Nuclear Data Services**.

Honours & Awards

The Frank Dennee Scholarship – McMaster University 2017, 2019

ComSciCon 2018 – National Science Communication Workshop 2018
Selection to attend the workshop from over 900 applicants.

International Excellence Award – McMaster University 2018

The Bridge residency program – SciArt Center 2017
Four-month virtual residency program, where artists and scientists are paired to collaborate on a project of their choice.

Approved User Facility Proposals

6. *“Measurement of the $^{84}\text{Se}(\alpha, \text{xn})$ cross section with MUSIC to constrain neutrino-driven wind nucleosynthesis”*
Spokespersons: **A. Psaltis**
#2114 of the ATLAS PAC (2024)
5. *“Determining the Site of Globular Cluster Potassium Enrichment via the $^{38}\text{Ar}(p, \gamma)^{39}\text{K}$ Reaction in Inverse Kinematics”*
Spokesperson: C. Marshall, Co-spokespersons: **A. Psaltis** and K. Chipps
e21070 of FRIB PAC1 meeting (2021)
4. *“Studying neutrino-driven wind nucleosynthesis with MUSIC: Measurement of the $^{93}\text{Sr}(\alpha, \text{xn})$ cross section”*
Spokespersons: **A. Psaltis** and W.J. Ong
#1923 of the ATLAS PAC (2021)
3. *“Studying supernova nucleosynthesis with CRIB: Measurement of the $^{13}\text{N}(\alpha, p)^{16}\text{O}$ reaction”*
Spokesperson: **A. Psaltis**

AVF69 of the 21st Nuclear Physics PAC of RI Beam factory (2020)

2. “Studying stellar helium burning with DRAGON: Direct measurement of the $^{18}\text{O}(\alpha, \gamma)^{22}\text{Ne}$ reaction”

Spokespersons: **A. Psaltis**, A.A. Chen, A. Lennarz and M. Williams

S1928 of TRIUMF EEC 201906S meeting (2019)

1. “Breakout reactions from the pp-chain and the vp-process: Measurement of the $^7\text{Be}(\alpha, \gamma)^{11}\text{C}$ reaction rate in inverse kinematics”

Spokespersons: **A. Psaltis**, A.A. Chen and D.S. Connolly

S1692 of TRIUMF EEC 201607S meeting (2016)

Teaching Experience

Technische Universität Darmstadt

September 2021 – February 2022

Darmstadt, Germany

Consulting students for their research projects (Stellar Structure and Explosive Nucleosynthesis) in the “Nuclear Astrophysics” seminar.

McMaster University – Teaching Assistant

September 2015 – May 2020

Hamilton, ON, Canada

Introduction to experiments, one-on-one lab assistance (~30 students), answering questions, test invigilation as well as marking quizzes, lab reports, and exams.

Classes taught:

- *PHYS 1A03*: Introductory Physics
- *PHYS 1E03*: Waves, Electricity and Magnetic Fields
- *PHYS 1AA3*: Introduction to Modern Physics
- *Astronomy/Origins 2B03*: Big Questions
- *Arts & Science 2D06*: Physics
- *iSCI 3A12*: Light, the Universe, and Everything (LUE)

Mentoring

- Tali Lansing: Elastic scattering measurements for α OMP (REU summer student 2023)
- Jan Kuske: Nucleosynthesis calculations for the r -process (M.Sc./Ph.D. student 2021 – present)
- Liam Kroll: Core-Collapse Supernovae simulations using MESA (summer student 2018, 2019)
Now graduate student at Dalhousie University (Halifax, NS, Canada)
- Physics & Astronomy Mentor-mentee program (2016 – 2020)

Science Communication

ComSciConCAN – Co-founder/ Organizing Committee Member

September 2018 - Present

ComSciCon is a workshop series organized by graduate students, for graduate students, focused on science communication skills. Our goal is to empower future leaders in technical communication to share the results from research in their field with broad and diverse audiences, not just practitioners in their fields. The event started in the US in 2013 and for the first time, it was hosted in Canada in the summer of 2019.

ScienceSeeker – Science news editor

February 2016 - February 2022

Edited in one of the Top 100 Science Blogs on the Web. My role included picking interesting blog posts about Art, Physics, and General Science out of a collection of 2,300 blogs and other science news sources from around the globe every week. Picks can be found on Twitter using the hashtag **#SciSeekPicks**.

William J. McCallion Planetarium – Producer/Presenter

November 2015 - August 2020

Hamilton, ON, Canada

Production and live presentation of educational shows. Presented to thousands of people, mostly students and the general public. Produced three full-dome interactive public shows:

- “*Rust and stardust: The lives of the stars and the origin of the elements*” – 2016
- “*Star Wars: The Science Awakens*” – 2017
- “*The golden dance of death*” – 2019

Pint of Science – City Coordinator
Hamilton, ON, Canada

January 2018 - August 2020

Pint of Science is a non-profit organization that brings some of the most brilliant scientists to your local pub to discuss their latest research and findings with you. Organization of the event in Hamilton.

Researchers' Night Hamilton – Coordinator
Hamilton, ON, Canada

October 2015 - August 2020

Researchers' Night is a European-based concept, which gives the public a unique opportunity to interact with scientists in a non-formal way for an evening. Coordination of the invited scientists, setup of the event, and social media coverage.

SciCo – Science Ambassador
Athens, Greece

September 2015 - April 2019

SciCo is the first Non-Profit Science Communication Organization in Greece. Part of the organizing team of the biggest Science Festival in Greece with more than 30,000 visitors every year - **Athens Science Festival**. Attended trainings on creative writing, creative storytelling, and science communication.

Professional Service

CAP Computational Advances in Astrophysics and Cosmology – Symposium Organizer May 2024

IReNA – r-process Experiments Focus Area coordinator team December 2022 – Present

ApJS, PRC, Front. Astron. Space Sci., Universe – Referee December 2021 – Present

NuGrid Collaboration – PI Team February 2021 – Present

ELEMENTS – Member March 2022 – January 2023

SFB 1245 – Member September 2020 – January 2023

IReNA Online Seminar Series – Committee Member September 2020 – April 2022

Chair since October 2021.

“Virtual workshop on (α, n) reactions for astrophysics” – Chair 14-15 July 2021

JINA Horizons – Twitter Team 30 November – 4 December 2020

Publications

 ORCID iD: 0000-0003-2197-0797

Journal Publications: 8 first/second author, 24 Nth author

Conference Proceedings: 5 first author, 16 Nth author

In the publications noted with a ★, I led the nucleosynthesis calculations

A Journal Publications

[A032] **A. Psaltis** and F. Montes, *Recent advancements on (α, n) reactions in astrophysical environments*, J. Phys. G: Nucl. Part. Phys., **Invited Topical Review** expected Q3 2024

[A031] D. Walter et al. (including **A. Psaltis**), *Signature of 0^+ excited state and shape coexistence in ^{94}Kr through $^{93}\text{Kr}(d, p)^{94}\text{Kr}$ reaction*, Phys. Lett. B, Submitted (2024)

- [A030] L. Varga *et al.* (including **A. Psaltis**), *Proton-Capture Studies in the ESR Storage Rings: Measurement of $^{124}\text{Xe}(p,\gamma)$ and $^{124}\text{Xe}(p,n)$ at Improved Sensitivity*, Phys. Rev. Lett., Submitted (2023)
- [A029] D. García-Senz *et al.* (including **A. Psaltis**), *Don't forget the electrons: extending moderately-sized nuclear networks for multidimensional hydrodynamic codes*, A&A, Submitted (2024), [arxiv: \[2403.03743\]](#) astro-ph
- [A028] J. J. Marsh *et al.* (including **A. Psaltis**), *The first in-beam reaction measurement at CRYRING@ESR using the CARME array*, Eur. Phys. J. A **60**, 95 (2024), [doi 10.1140/epja/s10050-024-01318-2](#)
- [A027] **A. Psaltis** *et al.*, *Neutrino-Driven Outflows and the Elemental Abundance Patterns of Very Metal-Poor Stars*, Astrophys. J, **966**, 11 (2024), [doi 10.3847/1538-4357/ad2dfb](#) *
- [A026] H. Jayatissa *et al.* (including **A. Psaltis**), *Study of the ^{22}Mg waiting point relevant for x-ray burst nucleosynthesis using a direct measurement of the $^{22}\text{Mg}(\alpha,p)^{25}\text{Al}$ reaction*, Phys. Rev. Lett., **131**, 112701 (2023), [doi 10.1103/PhysRevLett.131.112701](#)
- [A025] J. Kavoor *et al.* (including **A. Psaltis**), *Structure studies of ^{13}Be from the $^{12}\text{Be}(d,p)$ reaction in inverse kinematics on a solid deuteron target*, Phys. Rev. C, **108**, 034601 (2023), [doi 10.1103/PhysRevC.108.034601](#)
- [A024] L. Roberti, M. Pignatari, **A. Psaltis** *et al.*, *The γ -process nucleosynthesis in core-collapse supernovae I. A novel analysis of γ -process yields in massive stars*, A&A **677**, A22 (2023), [doi 10.1051/0004-6361/202346556](#)
- [A023] M. Williams *et al.* (including **A. Psaltis**), *Cross Sections of the $^{83}\text{Rb}(p,\gamma)^{84}\text{Sr}$ and $^{84}\text{Kr}(p,\gamma)^{85}\text{Rb}$ Reactions at Energies Characteristic of the Astrophysical γ Process*, Phys. Rev. C, **107** 035803 (2023), [doi 10.1103/PhysRevC.107.035803](#)
- [A022] H. Schatz *et al.* (including **A. Psaltis**), *Horizons: Nuclear Astrophysics in the 2020s and Beyond*, J. Phys. G: Nucl. Part. Phys. **49**, 110502 (2022), [doi 10.1088/1361-6471/ac8890](#) – **Major Review**
- [A021] N. Vukman *et al.* (including **A. Psaltis**), *Cluster decays of ^{12}Be excited states*, Front. Phys. **10** 1009421 (2022), [doi 10.3389/fphy.2022.1009421](#)
- [A020] **A. Psaltis** *et al.*, *First inverse kinematics measurement of resonances in $^7\text{Be}(\alpha,\gamma)^{11}\text{C}$ relevant to neutrino-driven wind nucleosynthesis using DRAGON*, Phys. Rev. C **106** 045805 (2022), [doi 10.1103/PhysRevC.106.045805](#)
- [A019] **A. Psaltis** *et al.*, *Direct measurement of resonances in $^7\text{Be}(\alpha,\gamma)^{11}\text{C}$ relevant to vp-process nucleosynthesis*, Phys. Rev. Lett., **129** 162701 (2022), [doi 10.1103/PhysRevLett.129.162701](#)
- [A018] L. Lombardo *et al.* (including **A. Psaltis**), *Chemical Evolution of R-process Elements in Stars (CERES) I. Stellar parameters and chemical abundances from Na to Zr*, A&A **665** A10 (2022), [doi 10.1051/0004-6361/202243932](#)
- [A017] **A. Psaltis** *et al.*, *Constraining nucleosynthesis in neutrino-driven winds: observations, simulations and nuclear physics*, Astrophys. J, **935**, 27 (2022) [doi 10.3847/1538-4357/ac7da7](#) *
- [A016] T. Budner *et al.* (including **A. Psaltis**), *Constraining the $^{30}\text{P}(p,\gamma)^{31}\text{S}$ reaction rate in ONe novae via the weak, low-energy, β -delayed proton decay of ^{31}Cl* , Phys. Rev. Lett., **128**, 182701 (2022), [doi 10.1103/PhysRevLett.128.182701](#)
- [A015] J. Hooker *et al.* (including **A. Psaltis**), *Use of Bayesian Optimization to Understand the Structure of Nuclei*, Nucl. Instr. Meth. Phys. Res. B, **512** 6 (2022), [doi 10.1016/j.nimb.2021.11.014](#)
- [A014] J. S. Randhawa *et al.* (including **A. Psaltis**), *First direct measurement of $^{59}\text{Cu}(p,\alpha)^{56}\text{Ni}$: A step towards constraining the Ni-Cu cycle in the Cosmos*, Phys. Rev. C, **104** L042801 (2021), [doi 10.1103/PhysRevC.104.L042801](#)
- [A013] M. Witt, **A. Psaltis** *et al.*, *Post-explosion evolution of core-collapse supernovae*, Astrophys. J, **921** 19 (2021), [doi 10.3847/1538-4357/ac1a6d](#) *

- [A012] J. Hu *et al.* (including **A. Psaltis**), *Advancement of Photospheric Radius Expansion and Clocked Type-I X-Ray Burst Models with the New $^{22}\text{Mg}(\alpha, p)^{25}\text{Al}$ Reaction Rate Determined at the Gamow Energy*, Phys. Rev. Lett., **127**, 172701 (2021), doi [10.1103/PhysRevLett.127.172701](https://doi.org/10.1103/PhysRevLett.127.172701)
- [A011] M. Holl *et al.* (including **A. Psaltis**), *Proton inelastic scattering reveals deformation in ^8He* , Phys. Lett. B, **822**, 136710 (2021), doi [10.1016/j.physletb.2021.136710](https://doi.org/10.1016/j.physletb.2021.136710)
- [A010] P. Mohr *et al.* (including **A. Psaltis**), *Astrophysical reaction rates of α -induced reactions for nuclei with $26 \leq Z \leq 83$ from the new Atomki-V2 α -nucleus potential*, At. Data Nucl. Data Tables, **142**, 101453 (2021), doi [10.1016/j.adt.2021.101453](https://doi.org/10.1016/j.adt.2021.101453)
- [A009] T. N. Szegedi *et al.* (including **A. Psaltis**), *Activation thick target yield measurement of $^{100}\text{Mo}(\alpha, n)^{103}\text{Ru}$ for studying the weak r -process nucleosynthesis*, Phys. Rev. C, **104**, 035804 (2021), doi [10.1103/PhysRevC.104.035804](https://doi.org/10.1103/PhysRevC.104.035804) *
- [A008] G. Lotay *et al.* (including **A. Psaltis**), *First direct measurement of an astrophysical p process reaction cross section using a radioactive ion beam*, Phys. Rev. Lett., **127**, 112701 (2021), doi [10.1103/PhysRevLett.127.112701](https://doi.org/10.1103/PhysRevLett.127.112701)
- [A007] M. Lovely *et al.* (including **A. Psaltis**), *Proton capture on ^{34}S in the astrophysical energy regime of ONe novae*, Phys. Rev. C, **103**, 055801 (2021), doi [10.1103/PhysRevC.103.055801](https://doi.org/10.1103/PhysRevC.103.055801)
- [A006] **A. Psaltis** *et al.*, *Beyond the acceptance limit of DRAGON: the case of the $^6\text{Li}(\alpha, \gamma)^{10}\text{B}$ reaction*, Nucl. Instr. Meth. Phys. Res. A, **987**, 164828 (2021), doi [10.1016/j.nima.2020.164828](https://doi.org/10.1016/j.nima.2020.164828)
- [A005] M. Williams *et al.* (including **A. Psaltis**), *First inverse kinematics study of the $^{22}\text{Ne}(p, \gamma)^{23}\text{Na}$ reaction and its role in AGB star and classical nova nucleosynthesis*, Phys. Rev. C, **102**, 035801 (2020), doi [10.1103/PhysRevC.102.035801](https://doi.org/10.1103/PhysRevC.102.035801)
- [A004] A. Lennarz *et al.* (including **A. Psaltis**), *First inverse kinematics measurement of key resonances in the $^{22}\text{Ne}(p, \gamma)^{23}\text{Na}$ reaction at stellar temperatures*, Phys. Lett. B **807**, 135539 (2020), doi [10.1016/j.physletb.2020.135539](https://doi.org/10.1016/j.physletb.2020.135539)
- [A003] **A. Psaltis** *et al.*, *Cross-section measurements of radiative proton-capture reactions in ^{112}Cd at energies of astrophysical interest*, Phys. Rev. C **99**, 065807 (2019), doi [10.1103/PhysRevC.99.065807](https://doi.org/10.1103/PhysRevC.99.065807)
- [A002] A. Khaliel *et al.* (including **A. Psaltis**), *First cross-section measurements of the reactions $^{107,109}\text{Ag}(p, \gamma)^{108,110}\text{Cd}$ at energies relevant to the p process*, Phys. Rev. C **96**, 035806 (2017), doi [10.1103/PhysRevC.96.035806](https://doi.org/10.1103/PhysRevC.96.035806) – Academy of Athens award on Experimental Physics
- [A001] T.J. Mertzimekis, K. Stamou and **A. Psaltis**, *An online database of nuclear electromagnetic moments*, Nucl. Instr. Meth. Phys. Res. A, **807**, 56 (2016), doi [10.1016/j.nima.2015.10.096](https://doi.org/10.1016/j.nima.2015.10.096)

B Conference Proceedings (Peer-Reviewed)

- [B023] **A. Psaltis** *et al.*, *Using (α, xn) reaction rates and abundance ratios to constrain the weak r -process*, J. Phys.: Conf. Ser. **2586** 012105 (2023), doi [10.1088/1742-6596/2586/1/012105](https://doi.org/10.1088/1742-6596/2586/1/012105)
- [B022] P. Adsley *et al.* (including **A. Psaltis**), *Understanding globular cluster abundances through nuclear reactions*, J. Phys.: Conf. Ser. **012100** 012105 (2023), doi [10.1088/1742-6596/2586/1/012100](https://doi.org/10.1088/1742-6596/2586/1/012100)
- [B021] J. Glorius *et al.* (including **A. Psaltis**), *Storage, accumulation and deceleration of secondary beams for nuclear astrophysics*, Nucl Instrum Methods Phys Res B **541**, 190 (2023), doi [10.1016/j.nimb.2023.04.059](https://doi.org/10.1016/j.nimb.2023.04.059)
- [B020] N. Vukman *et al.* (including **A. Psaltis**), *Helium Clustering in Neutron-rich Be Isotopes*, Acta Phys Pol B Proc Suppl **16**, 4-A34 (2023), doi [10.5506/aphyspolbsupp.16.4-a34](https://doi.org/10.5506/aphyspolbsupp.16.4-a34)

- [B019] C. Angus *et al.* (including **A. Psaltis**), *Measurement of the $^{86}\text{Kr}(\alpha, n)^{89}\text{Sr}$ cross section at energies relevant for the weak r -process*, EPJ Web of Conferences **279**, 08002 (2023), [doi 10.1051/epjconf/202327911003](https://doi.org/10.1051/epjconf/202327911003)
- [B018] S.F. Dellmann *et al.* (including **A. Psaltis**), *Proton capture on stored radioactive ^{118}Te ions*, EPJ Web of Conferences **279**, 11018 (2023), [doi 10.1051/epjconf/202327911018](https://doi.org/10.1051/epjconf/202327911018)
- [B017] **A. Psaltis** *et al.*, *Constraining nucleosynthesis in neutrino-driven winds using the impact of (α, xn) reaction rates*, EPJ Web of Conferences **279**, 08002 (2023), [doi 10.1051/epjconf/202327908002](https://doi.org/10.1051/epjconf/202327908002)
- [B016] H. Yamaguchi *et al.* (including **A. Psaltis**), *RIB induced reactions: Studying astrophysical reactions with low-energy RI beam at CRIB*, EPJ Web of Conferences **275**, 01015 (2023), [doi 10.1051/epjconf/202327501015](https://doi.org/10.1051/epjconf/202327501015)
- [B015] T. Wheeler *et al.* (including **A. Psaltis**), *Measuring the $^{15}\text{O}(\alpha, \gamma)^{19}\text{Ne}$ Reaction in Type I X-ray Bursts using the GADGET II TPC: Hardware*, EPJ Web of Conferences **260**, 11046 (2022), [doi 10.1051/epjconf/202226011046](https://doi.org/10.1051/epjconf/202226011046)
- [B014] R. Mahajan *et al.* (including **A. Psaltis**), *Measuring the $^{15}\text{O}(\alpha, \gamma)^{19}\text{Ne}$ Reaction in Type I X-ray Bursts using the GADGET II TPC: Software*, EPJ Web of Conferences **260**, 11034 (2022), [doi 10.1051/epjconf/202226011034](https://doi.org/10.1051/epjconf/202226011034)
- [B013] **A. Psaltis** *et al.*, *Exploring the uncertainties of (α, xn) reactions for the weak r -process*, EPJ Web of Conferences **260**, 07003 (2022), [doi 10.1051/epjconf/202226007003](https://doi.org/10.1051/epjconf/202226007003)
- [B012] J. Hu *et al.* (including **A. Psaltis**), *First measurement of $^{25}\text{Al}+p$ resonant scattering relevant to the astrophysical reaction $^{22}\text{Mg}(\alpha, p)^{25}\text{Al}$* , EPJ Web of Conferences **260**, 05001 (2022), [doi 10.1051/epjconf/202226005001](https://doi.org/10.1051/epjconf/202226005001)
- [B011] H. Yamaguchi *et al.* (including **A. Psaltis**), *Experimental studies on astrophysical reactions at the low-energy RI beam separator CRIB*, EPJ Web of Conferences **260**, 03003 (2022), [doi 10.1051/epjconf/202226003003](https://doi.org/10.1051/epjconf/202226003003)
- [B010] J. Liang *et al.* (including **A. Psaltis**), *Spectroscopic Study of ^{39}Ca for Endpoint Nucleosynthesis in Classical Novae*, J. Phys.: Conf. Ser. **1668**, 012025 (2020), [doi 10.1088/1742-6596/1668/1/012025](https://doi.org/10.1088/1742-6596/1668/1/012025)
- [B009] **A. Psaltis** *et al.*, *Study of the $^7\text{Be}(\alpha, \gamma)^{11}\text{C}$ reaction with DRAGON for vp -process nucleosynthesis*, J. Phys.: Conf. Ser. **1668**, 012035 (2020), [doi 10.1088/1742-6596/1668/1/012035](https://doi.org/10.1088/1742-6596/1668/1/012035)
- [B008] H. Shimizu *et al.* (including **A. Psaltis**), *Study on $^{26m}\text{Al}(p, \gamma)$ Reaction at the SNe Temperature*, JPS Conf. Proc. **31**, 011073 (2020), [doi 10.7566/JSPSCP.31.011073](https://doi.org/10.7566/JSPSCP.31.011073)
- [B007] **A. Psaltis** *et al.*, *Radiative alpha capture on ^7Be with DRAGON at energies relevant to the vp -process*, Springer Proceedings in Physics – NIC XV (2018), 425-428, [doi 10.1007/978-3-030-13876-9_81](https://doi.org/10.1007/978-3-030-13876-9_81)
- [B006] **A. Psaltis** *et al.*, *First radiative proton-capture cross-section measurements in mid-weight nuclei relevant to the p -process*, Springer Proceedings in Physics – NIC XV (2018), 421-424, [doi 10.1007/978-3-030-13876-9_80](https://doi.org/10.1007/978-3-030-13876-9_80)
- [B005] J. Liang *et al.* (including **A. Psaltis**), *Spectroscopic study on ^{39}Ca using the $^{40}\text{K}(d, t)^{39}\text{Ca}$ reaction for classical nova endpoint nucleosynthesis*, Springer Proceedings in Physics – NIC XV (2018), 397-400, [doi 10.1007/978-3-030-13876-9_74](https://doi.org/10.1007/978-3-030-13876-9_74)
- [B004] H. Shimizu *et al.* (including **A. Psaltis**), *Isomeric ^{26}Al beam production with CRIB*, EPJ Web of Conferences **184**, 02013 (2018), [doi 10.1051/epjconf/201818402013](https://doi.org/10.1051/epjconf/201818402013)
- [B003] N. Vukman *et al.* (including **A. Psaltis**), *Examining the Helium Cluster Decays of the ^{12}Be Excited States by Triton Transfer to the ^9Li Beam*, RÁBIDA 2018: Basic Concepts in Nuclear Physics: Theory, Experiments and Applications pp 257-258, [doi 10.1007/978-3-030-22204-8_43](https://doi.org/10.1007/978-3-030-22204-8_43)
- [B002] D. Kahl *et al.* (including **A. Psaltis**), *Impact of the $^{26m}\text{Al}(p, \gamma)$ reaction to galactic ^{26}Al yield*, AIP Conference Proceedings **1947**, 020003 (2018), [doi 10.1063/1.5030807](https://doi.org/10.1063/1.5030807)
- [B001] D. Kahl *et al.* (including **A. Psaltis**), *Isomer beam elastic scattering: $^{26m}\text{Al}(p, p)$ for Astrophysics*, EPJ Web of Conferences **165**, 01030 (2017), [doi 10.1051/epjconf/201716501030](https://doi.org/10.1051/epjconf/201716501030)

C Conference Proceedings (Non–Peer–Reviewed)

- [C002] A. Khaliel *et al.* (including **A. Psaltis**), *Experimental Investigation of radiative proton-capture reactions relevant to Nucleosynthesis*, HNPS2016 Proceedings, [doi 10.12681/hnps.1861](https://doi.org/10.12681/hnps.1861)
- [C001] E. Batziou *et al.* (including **A. Psaltis**), *Modeling radiative proton–capture reactions in mid–heavy nuclei*, HNPS2015 Proceedings, [doi 10.12681/hnps.1893](https://doi.org/10.12681/hnps.1893)

D Books

- [D003] *Galactic and Stellar Physics* by A.G.W. Cameron, Based on a course lecture given at Yale University 1964-1965, Compiled by W.D. Arnett, C.J. Hansen and J.W. Truran, re-typeset in \LaTeX by D. Kahl, **A. Psaltis**, J. Liang and S. Malek (in preparation)
- [D002] *Physics of the Solar System* by A.G.W. Cameron, Based on a course lecture given at Yale University 1963-1964, Compiled by W.D. Arnett, C.J. Hansen and J.W. Truran, re-typeset in \LaTeX by D. Kahl, **A. Psaltis**, J. Liang and S. Malek (in preparation)
- [D001] *Nuclear Astrophysics* by A.G.W. Cameron, Based on a course lecture given at Yale University 1962-1963, Assisted by W.D. Arnett, C.J. Hansen and J.W. Truran, re-typeset in \LaTeX by D. Kahl, **A. Psaltis**, J. Liang and S. Malek (in preparation)

E Other Publications

- [E001] M. Pignatari and **A. Psaltis**, *Underground route to grasping the oldest stars*, Nature **610** 641 (2022), [doi 10.1038/d41586-022-03367-3](https://doi.org/10.1038/d41586-022-03367-3)

Academic Presentations

Nuclear Physics in Astrophysics XI – oral (Dresden, Germany)	September 2024
ATOMKI Seminar – invited oral (Debrecen, Hungary)	January 2024
XVII Nuclei in the Cosmos – oral & poster (Daejeon, South Korea)	September 2023
Science Summit at the 79th UN General Assembly – invited oral (New York, NY)	September 2023
BRIDCE-IReNA Annual Meeting – invited oral (Edinburgh, UK)	September 2023
Gordon Research Conference in Nuclear Chemistry – invited oral (New London, NH USA)	June 2023
Texas A&M Cyclotron colloquium – invited oral (College Station, TX USA)	April 2023
Nuclear Lunch Webinar – invited oral (Athens, Greece)	December 2022
Origin of Matter and Evolution of Galaxies (OMEG16) – oral (Virtually)	October 2022
28th International Nuclear Physics Conference – oral (Cape Town, South Africa)	September 2022
Nuclear Physics in Astrophysics X – oral (Geneva, Switzerland)	September 2022
FRIB Theory Seminar – invited oral (East Lansing, MI, USA)	June 2022
2022 JINA-CEE Frontiers in Nuclear Astrophysics – poster (South Bend, IN, USA)	May 2022
ELEMENTS Annual Conference 2022 – oral (Frankfurt, Germany)	May 2022
ELEMENTS Kick-off WA3 workshop – invited oral (Virtually)	February 2022
Advisory Committee On TRIUMF (ACOT) meeting – invited poster (Virtually)	November 2021
28th Symposium of the Hellenic Nuclear Physics Society – oral (Athens, Greece)	September 2021
XVI Nuclei in the Cosmos – oral & poster (Virtually)	September 2021

DPG Matter and Cosmos Section – oral (Virtually)	August 2021
TRIUMF Science Week – poster (Virtually)	August 2021
2021 CAP Virtual Congress – oral (Virtually)	June 2021
IKP Seminar – invited oral (Darmstadt, Germany)	August 2020
Advisory Committee On TRIUMF meeting – invited oral (Vancouver, BC, Canada)	November 2019
7th p–process workshop 2019 – oral (Serralunga d’ Alba, Italy)	September 2019
Nuclear Physics in Astrophysics IX – oral (Mainz, Germany)	September 2019
CNLS Astrophysics Friday Meeting – invited oral (Los Alamos, NM, USA)	May 2019
5th Joint Meeting of the APS DNP and the PSJ – oral (Waikoloa, HI, USA)	October 2018
15th International Symposium on Nuclei in the Cosmos – posters (Assergi, Italy)	June 2018
15th Russbach School on Nuclear Astrophysics – oral (Russbach, Austria)	March 2018
Nuclear Astrophysics at Rings and Recoil Separators Workshop – oral (Darmstadt, Germany)	March 2018
TRIUMF Science Week – poster (Vancouver, BC, Canada)	July 2017
2017 JINA-CEE Frontiers in Nuclear Astrophysics – oral (Lansing, MI, USA)	February 2017
McMaster Physics & Astronomy Symposium Day – oral (Hamilton, ON, Canada)	October 2016
École Joliot-Curie: “Origin of Nuclei in the Universe” – poster (Le Barcarès, France)	September 2016
p–process Workshop 2015: Status and Outlook – oral (Limassol, Cyprus)	June 2015
24th Symposium of the Hellenic Nuclear Physics Society – poster (Ioannina, Greece)	May 2015
23th Symposium of the Hellenic Nuclear Physics Society – oral (Thessaloniki, Greece)	June 2014
Charged Particle Optics: Theory and Simulation (CPOTS 2013) – oral (Heraklion, Greece)	August 2013
21st Symposium of the Hellenic Nuclear Physics Society – poster (Athens, Greece)	May 2012