Curiculum Vitae

Athanasios Psaltis, Ph.D.
Postdoctoral Associate

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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 — September 2015 – August 2020
Ph.D. in Physics

Advisor: Prof. Alan Chen
Thesis title: "Radiative alpha capture on ^{7}Be with DRAGON at vp-process nucleosynthesis energies"

National and Kapodistrian University of Athens • Athens, Greece — October 2010 – September 2014
B.Sc. in Physics

Advisor: Assoc. Prof. Theodoros Mertzimekis
Minored in astrophysics. Thesis title: "Experimental studies of cross sections and angular distributions of ^{112}Cd(p,γ)^{113}In with application in nucleosynthesis"

Research Positions

Triangle Universities Nuclear Laboratory • Durham, NC, USA — January 2023 – Present
Postdoctoral Research Scholar

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 • Darmstadt, Germany — September 2020 – January 2023
Postdoctoral Researcher

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 • Hamilton, ON, Canada — September 2015 – August 2020
Research Assistant

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 • Los Alamos, NM, USA May 2019
Visiting Graduate Researcher
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 • Vancouver, BC, Canada June 2017 – September 2017
Visiting Graduate Researcher
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.

National Centre of Scientific Research Demokritos • Athens, Greece November 2013 – March 2014
Undergraduate Researcher
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 • Athens, Greece November 2011 – September 2015
Database Contributor
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.

Approved User Facility Proposals

7 approved user facility proposals at TRIUMF (3), Argonne National Laboratory (2), RIKEN (1), and FRIB (1). Total of **52 days** of machine-time.

7. *"Measurement of the* $^{20}\mathrm{Ne}(\alpha,\gamma)^{24}\mathrm{Mg}$ *with DRAGON"*
   Spokespersons: A.A. Chen, A. Lennarz, **A. Psaltis** and C. Ruiz
   S2417 of TRIUMF EEC 202407S meeting (2024)

6. *"Measurement of the* $^{84}\mathrm{Se}(\alpha,\mathrm{xn})$ *cross section with MUSIC to constrain neutrino-driven wind nucleosynthesis"*
   Spokesperson: **A. Psaltis**
   #2114 of the ATLAS PAC (2024)

5. *"Determining the Site of Globular Cluster Potassium Enrichment via the* $^{38}\mathrm{Ar}(\mathrm{p},\gamma)^{39}\mathrm{K}$ *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* $^{93}\mathrm{Sr}(\alpha,\mathrm{xn})$ *cross section"*
   Spokespersons: **A. Psaltis** and W.J. Ong
   #1923 of the ATLAS PAC (2021)

3. *"Studying supernova nucleosynthesis with CRIB: Measurement of the* $^{13}\mathrm{N}(\alpha,\mathrm{p})^{16}\mathrm{O}$ *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* $^{18}\mathrm{O}(\alpha,\gamma)^{22}\mathrm{Ne}$ *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* $^{7}Be(\alpha,\gamma)^{11}C$ *reaction rate in inverse kinematics"*
   Spokespersons: **A. Psaltis**, A.A. Chen and D.S. Connolly
   S1692 of TRIUMF EEC 201607S meeting (2016)

Honours & Awards

Visiting Fellowship – IReNA 2025
HUN-REN CSFK Astronomical Institute of Konkoly in Budapest
to work with Drs. Marco Pignatari and Maria Lugaro

The Frank Dennee Scholarship – McMaster University 2017, 2019
Internal award based on academic achievement for graduate students
in nuclear science and nuclear engineering.

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.

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 • Hamilton, ON, Canada November 2015 - August 2020
Producer/Presenter
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 • Hamilton, ON, Canada January 2018 - August 2020
City Coordinator
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 • Hamilton, ON, Canada October 2015 - August 2020
Cooridnator
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 • Athens, Greece September 2015 - April 2019
Science Ambassador
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.

Teaching Experience

Technische Universität Darmstadt • Darmstadt, Germany September 2021 – February 2022
Teaching Assistant
Consulting students for their research projects (Stellar Structure and Explosive Nucleosynthesis) in the "Nuclear Astrophysics" seminar.

McMaster University • Hamilton, ON, Canada September 2015 – May 2020
Teaching Assistant
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

- Dhruval Shah: Measurement of the $^{18}O(\alpha,\gamma)^{22}Ne$ with DRAGON (M.Sc. student 2024 – present)
- Tali Lansing: Elastic scattering measurements for αOMP (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)

Professional Service

Symposium Organizer • CAP Computational Advances in Astrophysics and Cosmology May 2024
r-process Experiments Focus Area coordinator team • IReNA December 2022 – Present
Referee • ApJS, PRC, Front. Astron. Space Sci., Universe, Galaxies December 2021 – Present
PI Team • NuGrid Collaboration February 2021 – Present
Member • ELEMENTS March 2022 – January 2023
Member • SFB 1245 September 2020 – January 2023
Committee Member IReNA Online Seminar Series September 2020 – April 2022
Chair between October 2021 – April 2022.
Conference Chair • "Virtual workshop on (α,n) reactions for astrophysics" 14-15 July 2021
Twitter Team • JINA Horizons 30 November – 4 December 2020

Publications

ORCID iD: 0000-0003-2197-0797

38 Journal Publications • 9 first/second author
23 Conference Proceedings • 6 first author
In the publications noted with a ⋆, I led the nucleosynthesis calculations

A Journal Publications

[A038] **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

[A037] **A. Psaltis** *et al.*, *Low-metallicity nova explosions: a site for weak rp-process nucleosynthesis*, Astrophys. J, In preparation (2025) ⋆

[A036] C. Iliadis *et al.* (including **A. Psaltis**), *The 2025 Evaluation of Experimental Thermonuclear Reaction Rates (ETR25)*, Astrophys. J Suppl. Ser., In preparation (2025)

[A035] L. Ward *et al.* (including **A. Psaltis**), *Impact of thermonuclear reaction rate uncertainties on the identification of presolar grains from classical novae*, Astrophys. J, Submitted (2025)

[A034] C. Fougères, M.L. Avila, **A. Psaltis** *et al.*, *First measurement of ^{87}Rb(α, xn) cross sections at weak r-process energy in ν-driven supernova ejecta to investigate elemental abundances in low-metallicity stars*, Astrophys. J, Accepted (2025) ⋆

[A033] S.F. Dellmann *et al.* (including **A. Psaltis**), *First Proton-Induced Cross Sections on a Stored Rare Ion Beam: Measurement of ^{118}Te(p,γ) for Explosive Nucleosynthesis*, Phys. Rev. Lett., Accepted (2025)

[A032] M. Williams *et al.* (including **A. Psaltis**), *First measurement of a weak r-process reaction on a radioactive nucleus*, Phys. Rev. Lett.,**134**, 112701 (2025), doi 10.1103/PhysRevLett.134.112701

[A031] L. Varga *et al.* (including **A. Psaltis**), *Proton-Capture Studies in the ESR Storage Rings: Measurement of ^{124}Xe(p,γ) and ^{124}Xe(p,n) at Improved Sensitivity*, Phys. Rev. Lett. **134**, 082701 (2025) doi 10.1103/PhysRevLett.134.082701

[A030] D. Walter *et al.* (including **A. Psaltis**), *Signature of 0^+ excited state and shape coexistence in ^{94}Kr through ^{93}Kr(d,p)^{94}Kr reaction*, Phys. Lett. B, **862**, 139352 (2025) doi 10.1016/j.physletb.2025.139352

[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 **688**, A218 (2024), doi 10.1051/0004-6361/202449863

[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}Mg(α,p)^{25}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}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}Rb(p,γ)^{84}Sr and ^{84}Kr(p,γ)^{85}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}Be(α, γ)^{11}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}Be(α, γ)^{11}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}P(p, γ)^{31}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}Cu(p, α)^{56}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}Mg(α, p)^{25}Al Reaction Rate Determined at the Gamow Energy*, Phys. Rev. Lett., **127**, 172701 (2021), doi 10.1103/PhysRevLett.127.172701

[A011] M. Holl *et al.* (including **A. Psaltis**), *Proton inelastic scattering reveals deformation in ^{8}He*, Phys. Lett. B, **822**, 136710 (2021), doi 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

[A009] T. N. Szegedi *et al.* (including **A. Psaltis**), *Activation thick target yield measurement of ^{100}Mo(α, n)^{103}Ru for studying the weak r-process nucleosynthesis*, Phys. Rev. C, **104**, 035804 (2021), doi 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

[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

[A006] **A. Psaltis** *et al.*, *Beyond the acceptance limit of DRAGON: the case of the $^{6}Li(\alpha,\gamma)^{10}B$ reaction*, Nucl. Instr. Meth. Phys. Res. A, **987**, 164828 (2021), doi 10.1016/j.nima.2020.164828

[A005] M. Williams *et al.* (including **A. Psaltis**), *First inverse kinematics study of the $^{22}Ne(p,\gamma)^{23}Na$ reaction and its role in AGB star and classical nova nucleosynthesis*, Phys. Rev. C, **102**, 035801 (2020), doi 10.1103/PhysRevC.102.035801

[A004] A. Lennarz *et al.* (including **A. Psaltis**), *First inverse kinematics measurement of key resonances in the $^{22}Ne(p,\gamma)^{23}Na$ reaction at stellar temperatures*, Phys. Lett. B **807**, 135539 (2020), doi 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

[A002] A. Khaliel *et al.* (including **A. Psaltis**), *First cross-section measurements of the reactions $^{107,109}Ag(p,\gamma)^{108,110}Cd$ at energies relevant to the p process*, Phys. Rev. C **96**, 035806 (2017), doi 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

B Peer-Reviewed Conference Proceedings

[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

[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

[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

[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

[B019] C. Angus *et al.* (including **A. Psaltis**), *Measurement of the $^{86}Kr(\alpha,n)^{89}Sr$ cross section at energies relevant for the weak r-process*, EPJ Web of Conferences **279**, 08002 (2023), doi 10.1051/epjconf/202327911003

[B018] S.F. Dellmann *et al.* (including **A. Psaltis**), *Proton capture on stored radioactive 118Te ions*, EPJ Web of Conferences **279** 11018 (2023), doi 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

[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

[B015] T. Wheeler *et al.* (including **A. Psaltis**), *Measuring the $^{15}O(\alpha,\gamma)^{19}Ne$ 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

[B014] R. Mahajan *et al.* (including **A. Psaltis**), *Measuring the $^{15}O(\alpha,\gamma)^{19}Ne$ 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

[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

[B012] J. Hu *et al.* (including **A. Psaltis**), *First measurement of ^{25}Al+p resonant scattering relevant to the astrophysical reaction ^{22}Mg$(\alpha,p)^{25}$Al* , EPJ Web of Conferences **260**, 05001 (2022), 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), 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), 10.1088/1742-6596/1668/1/012025

[B009] **A. Psaltis** *et al.*, *Study of the ^{7}Be(α,γ)^{11}C reaction with DRAGON for vp–process nucleosynthesis*, J. Phys.: Conf. Ser. **1668**, 012035 (2020), 10.1088/1742-6596/1668/1/012035

[B008] H. Shimizu *et al.* (including **A. Psaltis**), *Study on ^{26m}Al(p,γ) Reaction at the SNe Temperature*, JPS Conf. Proc. **31**, 011073 (2020), 10.7566/JPSCP.31.011073

[B007] **A. Psaltis** *et al.*, *Radiative alpha capture on ^{7}Be with DRAGON at energies relevant to the vp-process*, Springer Proceedings in Physics – NIC XV (2018), 425, 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, 10.1007/978-3-030-13876-9_80

[B005] J. Liang *et al.* (including **A. Psaltis**), *Spectroscopic study on ^{39}Ca using the ^{40}K(d,t)^{39}Ca reaction for classical nova endpoint nucleosynthesis*, Springer Proceedings in Physics – NIC XV (2018), 397, 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), 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 ^{9}Li Beam*, RÁBIDA 2018: Basic Concepts in Nuclear Physics: Theory, Experiments and Applications pp 257-258, 10.1007/978-3-030-22204-8_43

[B002] D. Kahl *et al.* (including **A. Psaltis**), *Impact of the ^{26m}Al(p,γ) reaction to galactic ^{26}Al yield*, AIP Conference Proceedings **1947**, 020003 (2018), 10.1063/1.5030807

[B001] D. Kahl *et al.* (including **A. Psaltis**), *Isomer beam elastic scattering: ^{26m}Al(p,p) for Astrophysics*, EPJ Web of Conferences **165**, 01030 (2017), 10.1051/epjconf/201716501030

C Non-Peer-Reviewed Publications

[C004] **A. Psaltis**, *Chasing Stardust*, American Scientist, May 2024, https://www.americanscientist.org/blog/from-the-staff/chasing-stardust

[C003] M. Pignatari and **A. Psaltis**, *Underground route to grasping the oldest stars*, Nature **610** 641 (2022), 10.1038/d41586-022-03367-3 **News & Views**

[C002] A. Khaliel *et al.* (including **A. Psaltis**), *Experimental Investigation of radiative proton-capture reactions relevant to Nucleosynthesis*, HNPS2016 Proceedings, 10.12681/hnps.1861

[C001] E. Batziou *et al.* (including **A. Psaltis**), *Modeling radiative proton–capture reactions in mid–heavy nuclei*, HNPS2015 Proceedings, 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)

Academic Presentations

17 Invited presentations • 31 Contributed presentations

IJCLab Colloquium – **invited oral** (Orsay, France)	April 2025
McMaster University Colloquium – **invited oral** (Hamilton, ON, Canada)	November 2024
University of Tennessee Seminar – **invited oral** (Knoxville, TN)	October 2024
8th p-process workshop – oral (Budapest, Hungary)	October 2024
Nuclear Physics in Astrophysics XI – oral (Dresden, Germany)	September 2024
University of Edinburgh Colloquium – **invited oral** (Edinburgh, UK)	July 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
s 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