

Curriculum Vitæ et Studiorum

Dr Maria Lugaro

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Education

Doctorate degree

University	Monash University (Australia)
Date	October 2001
Supervisor	Prof. John Lattanzio
Subject	Nuclear Astrophysics
Thesis	<i>Nucleosynthesis in AGB stars</i>

Undergraduate degree: *Laurea in Physics*

University	University of Torino (Italy)
Date	November 1996
Supervisor	Prof. Roberto Gallino
Subject	Nuclear Astrophysics
Thesis	<i>The s process in AGB stars of low mass</i>
Mark	110/110 <i>cum laude</i>

Positions

- November 2014 - present, Momentum project leader of the Hungarian Academy of Science, Konkoly Observatory, Hungary
- May 2014 - present, Adjunct Senior Researcher, Monash University, Australia
- January 2011 - April 2014, Senior Lecturer, Monash University, Australia
- January 2011 - April 2014, Australian Research Council (ARC) Future Fellow, Monash University, Australia
- November 2008 - October 2013, Monash Research Fellow, Monash University, Australia
- October 2005 - September 2008, Netherlands Organisation for Scientific Research (NWO) VENI fellow, University of Utrecht, The Netherlands

- October 2001 - February 2005, Post-doctoral research associate, University of Cambridge, UK
- October 2001 - December 2001, Visiting post-doctoral research associate, University of Notre Dame, USA
- May 2001 - August 2001, Post-doctoral research associate, University of Torino, Italy
- December 1996 - July 1997, Research assistant, University of Torino, Italy

Teaching experience

- 2012 - 2013: Lectures in 3rd-year undergraduate course “Stars and galaxies”, Monash University, Australia
- 2011: Lectures in 2nd-year undergraduate course “Introduction to astrophysics”, Monash University, Australia
- 2009 - 2011: Lectures in 4th-year undergraduate course “Research topics in astrophysics”, Monash University, Australia
- 2004: Tutor in Stellar Structure and Evolution, University of Cambridge, UK
- 2000: Tutor in Mathematics, Monash University, Australia

Supervising

- Student supervising: Mark van Raai (Utrecht, 2006-2008), undergraduate and master thesis; George Angelou (Monash, 2009-2014), PhD associate supervision; Joeline Buntain (Monash, 2010-present), PhD main supervisor
- Research assistant supervising: Marie Newington (Monash, 2009 - 2011); Karen Lewis (Monash, 2011 - 2012); Carolyn Doherty (Monash, 2011 - present)

Other academic activities

Invited talks, lectures, and reviews¹

17. June 2015, Origin of Matter and Evolution of Galaxies, Beijing (China)
16. July 2014, 11th Workshop on Nucleosynthesis in AGB stars, Bonn (Germany)
15. May 2013, Nuclear Physics in Astrophysics VI, XXVI International Nuclear Physics Divisional Conference of the European Physical Society, Lisbon (Portugal)
14. July 2010, The Eleventh International Symposium on Nuclei in the Cosmos, Heidelberg, (Germany, invitation declined because of the birth to my twins)
13. July 2008, The Tenth International Symposium on Nuclei in the Cosmos, Michigan (USA)
12. May 2007, Workshop on experimental opportunities for nuclear astrophysics at the Frankfurt neutron source of the Stern-Gerlach-Zentrum, Forschungszentrum Karlsruhe and Frankfurt University (Germany)

¹On top of the invited presentations listed here, since 2000 I have also delivered more than 30 contributed oral presentations at workshops and conferences and more than 30 seminars and colloquia.

11. April 2007, Dutch meeting on inter- and circum-stellar matter, Amsterdam (The Netherlands)
10. March 2007, Nuclear Physics in Astrophysics III, XXI International Nuclear Physics Divisional Conference of the European Physical Society, Dresden (Germany)
9. September 2006, International Meteor Conference, Roden (The Netherlands)
8. August 2006, XXVth IAU General Assembly, Prague (Czech republic)
7. October 2005, meeting on Nuclear Physics & Astrophysics at CERN - NuPAC, CERN, Geneva (Switzerland)
6. April 2005, American Physical Society Meeting, Tampa (Florida, USA, invitation declined because of the birth to my second child)
5. September 2004, Experimental Nuclear Astrophysics - Challenges and Opportunities, Karlsruhe (Germany)
4. July 2004, The Eight International Symposium on Nuclei in the Cosmos, Vancouver (Canada)
3. March 2004, The 2nd n-TOF Winter School, Flachau (Austria)
2. October 2001, The Joint Meeting of the Nuclear Physics Divisions of the American Physical Society and Japanese Physical Society, Hawaii (USA)
1. July 2000, The Sixth International Symposium on Nuclei in the Cosmos, Aarhus (Denmark)

Fellowships

1. Hungarian Academy of Science, Momentum fellowship, 2014, HUF217,000,000 (~EUR700,000 EUR) for 5 years.
2. Spanish government, Ramon y Cajal Fellowship, 2014, estimated ~EUR230,000 for 5 years (declined).
3. Australian Research Council (ARC), Future Fellowship, 2010, AUS\$586,000 for 4 years.
4. Monash University, Monash Research Fellowship, 2008, AUS\$650,000 for 5 years.
5. Monash University, Margaret Clayton - Women in Research Postdoctoral Fellowship, 2008, AUS\$200,000 for 3 years (declined).
6. Netherland Organisation for Scientific Research (NWO), VENI fellowship, 2004, EUR200,000 for 3 years.
7. Italian Ministry of Research, "Rientro dei Cervelli" (Return of the Brains), 2004, EUR270,000 for 4 years (declined).
8. Monash University (International Postgraduate Research Scheme), PhD fee and stipend scholarship, 1997, AUS\$100,000 for 3.5 years.

Recent grants

1. Group of eight Australia-Germany joint research cooperation scheme, 2013, AUS\$16,000 over 2 years to travel to Bonn.

2. NASA Cosmochemistry Program 2012. Co-applicant on Project Title: “Correlated Studies of Isotopes, Chronologies, and Microstructures of Stardust SiC Grains” P.I. Frank Gyngard USD\$260,000 over 3 years
3. Ian Potter Foundation conference grant, 2012, AUS\$8,000 to support the conference on Nuclei in the Cosmos XII.
4. International Union for Pure and Applied Physics (IUPAP) conference grant, 2012, EUR5,000 to support the conference on Nuclei in the Cosmos XII.
5. Monash university “Advancing Women in Science” grant, 2012, AUS\$10,000.
6. Victorian Endowment for Science, Knowledge and Innovation (VESKI) grant, 2010, AUS\$5,500 to support the international workshop on Astronomy with Radioactivities.
7. Australian Academy of Science “Elizabeth and Frederick White conference grant”, 2009, AUS\$10,000 to support the conference on Nuclear Astrophysics in Australia.

Conference and workshop organisation

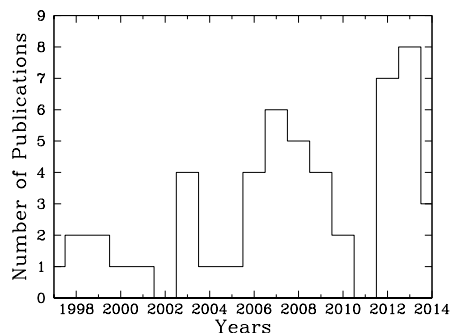
- Chair of the Organising Committee of the 12th Torino workshop on AGB stars in Budapest, Hungary (2016)
- Member of the Program Committee of the 26th International Nuclear Physics Conference (INPC 2016), Adelaide, Australia (September 2016)
- Member of the International Advisory Board of The Fourteen International Symposium on Nuclei in the Cosmos (NIC14), Tokyo, Japan (June 2016)
- Member of the International Advisory Board of the 2015 meeting on Origin of Matter and Evolution of Galaxies (OMEG2015), Beijing, (June 2015)
- Member of the International Advisory Board of The Thirteen International Symposium on Nuclei in the Cosmos (NIC13), Debrecen, Hungary (7-11 July 2014, www.nic2014.org)
- Chair of the Organising Committee of The Twelfth International Symposium on Nuclei in the Cosmos (NIC12), Cairns, Australia (5-10 August 2012, www.nic2012.org) and co-editor of the conference proceedings (Proceedings of Science, <http://pos.sissa.it/cgi-bin/reader/conf.cgi?confid=146>).
- Co-chair of the Organising Committee of the workshop on “Astronomy with Radioactivities VII”, Victoria, Australia (1-3 March 2011).
- Chair of the Organising Committee of the Elizabeth and Frederick White conference on Nuclear Astrophysics in Australia in Canberra, Australia (23-25 August 2009).
- Chair of the Organising Committee of the workshop on “The Origin of the Elements Heavier than Fe” in honor of the 70th birthday of Roberto Gallino in Torino, Italy (25-27 September 2008) and co-editor of the special volume of the Publication of the Astronomical Society of Australia (Vol. 26, issue 3, 2009).
- Chair of the Local Organising Committee of the 7th Torino workshop on AGB stars in Cambridge, UK (2-6 August 2004) and co-editor of the workshop proceedings published in *Memorie della Società Astronomica Italiana* (Vol. 75, n. 4, 2004).

Other

- Referee for The Astrophysical Journal, Astronomy & Astrophysics, Monthly Notices of the Royal Astronomical Society, Nuclear Physics A, Publications of the Astronomical Society of Australia, Meteoritics and Planetary Science, and Geochimica Cosmochimica Acta.
- Referee of proposals for the Australian Research Council, NASA, and the Belgian Fonds national de la recherche scientifique (FNRS) and Fonds Wetenschappelijk Onderzoek - Vlaanderen (FWO).
- Team member of the GALactic Archaeology with HERMES (GALAH, www.mso.anu.edu.au/galah/home.html) stellar survey, a large observing program using the HERMES instrument with the Anglo-Australian Telescope starting in 2014.
- Scientific participant in the USA Joint Institute for Nuclear Astrophysics (JINA, www.jinaweb.org), a Physics Frontier Center of the USA National Science Foundation, which fosters research programs and educational initiatives within the field of nuclear astrophysics at large.
- Member of the Meteoritical Society since 1998.
- Member of the Astronomical Society of Australia (ASA) since 2009 and Fellow since 2011. In 2008 - 2009, Member of the Steering Committee of the ASA Chapter: Australian National Institute for Nuclear Astrophysics (ANITA) and co-organiser of the Third ANITA workshop in Canberra, Australia (9-10 March 2009).
- Member of the International Astronomical Union (IAU) since 2009 and member of the Organizing Committee of the IAU working group on abundances in red giants. In 2008 and 2009: Member of the Task Group for “She is an Astronomer”, a Cornerstone Project of the International Year of Astronomy 2009.

Publications

The side figure shows a summary, as a function of the year, of my 51 fully refereed publications in major international peer-reviewed multi-disciplinary scientific journals (Science, impact factor IF=31) and in the leading international peer-reviewed journals in the different fields of research related to my work: *Astrophysical Journal* and *Astrophysical Journal Letters* (IF = 6.7, the 3rd top publication in Physics & Mathematics according to 2014 Google Scholar Metrics), *Astronomy & Astrophysics* (IF = 5.1), *Monthly Notices of the Royal Astronomical Society* (IF = 5.4), *Meteoritics and Planetary Science* (IF = 2.8), *Geochimica Cosmochimica Acta* (IF = 4.4), *Physical Review Letters* (IF = 7.4, the 1st top publication in Physics & Mathematics according to 2014 Google Scholar Metrics), and *Physical Review C* (IF = 3.7). The lowest points in my academic productivity in terms of number of papers are related to the career breaks due to the birth and caring of my four children. Overall, I have published more than 150 works (including conference proceedings and abstracts) and have a total of more than 2800 citations to my work with an h-index of 26 (as of November 2014, according to NASA ADS).



Books

- 130 *Stardust from Meteorites: an Introduction to Presolar Grains* **M. Lugaro**, 2005, Series in Astronomy and Astrophysics, Vol. 9 (World Scientific, Singapore)

Book Chapters

- 129 *Radioactivities in Low- and Intermediate-Mass Stars* **M. Lugaro** & A. Chieffi, 2011, Chapter III in “Astronomy with Radioactivities”, Lecture Notes in Physics, Issue 812 (Springer, Berlin)

Refereed journals

- 128 *Stellar Origin of the ^{182}Hf Cosmochronometer and the Presolar History of Solar System Matter* **M. Lugaro**, A. Heger, D. Osrin, S. Goriely, K. Zuber, A. I. Karakas, B. K. Gibson, C. L. Doherty, J. C. Lattanzio & U. Ott 2014, *Science*, 345, 650
- 127 *Evolution and nucleosynthesis of asymptotic giant branch stellar models of low metallicity* C. K. Fishlock, A. I. Karakas, **M. Lugaro** & D. Yong 2014, *The Astrophysical Journal*, in press
- 126 *The impact of updated Zr neutron-capture cross sections and new asymptotic giant branch models on our understanding of the s process and the origin of stardust* **M. Lugaro**, G. Tagliente, A. I. Karakas, P. M. Milazzo, F. Kaeppler, A. M. Davis & M. R. Savina, 2014, *The Astrophysical Journal*, 780, 95
- 125 *Cross-section measurements of the $^{86}\text{Kr}(\gamma, n)$ reaction to probe the s-process branching at ^{85}Kr* R. Raut, A. P. Tonchev, G. Rusev, W. Tornow, C. Iliadis, **M. Lugaro**, J. Buntain, S. Goriely, J. H. Kelley, R. Schwengner, A. Banu & N. Tsoneva, 2013, *Physical Review Letters*, 111, id. 112501

- 124 *Rubidium abundances in the globular clusters NGC 6752, NGC 1904 and NGC 104 (47 Tuc)* V. D'Orazi, **M. Lugaro**, S. W. Campbell, A. Bragaglia, E. Carretta, R. G. Gratton, S. Lucatello & F. D'Antona, 2013, *The Astrophysical Journal*, 776, 59
- 123 *Hot bottom burning and s-process nucleosynthesis in massive AGB stars at the beginning of the thermally-pulsing phase* D. A. Garcia-Hernandez, O. Zamora, A. Yague, S. Uttenthaler, A. I. Karakas, **M. Lugaro**, P. Ventura & D. L. Lambert, 2013, *Astronomy & Astrophysics Letters*, 555, 3
- 122 *Europium s-process signature at close-to-solar metallicity: insights from presolar stardust grains from AGB stars* J. N. Ávila, T. R. Ireland, **M. Lugaro**, F. Gyngard, E. Zinner, S. Cristallo, P. Holden & T. Rauscher, 2013, *The Astrophysical Journal Letters*, 768, 18
- 121 *On the internal pollution mechanisms in the globular cluster NGC 6121 (M4): s-process element abundances and AGB models* V. D' Orazi, S. W. Campbell, **M. Lugaro**, J. C. Lattanzio, M. Pignatari & E. Carretta, 2013, *Monthly Notices of the Royal Astronomical Society*, 433, 366
- 120 *Decoding the message from meteoritic stardust silicon carbide grains* K. M. Lewis, **M. Lugaro**, B. K. Gibson & K. Pilkington, 2013, *The Astrophysical Journal Letters*, 768, 19 (Note: the first two authors have contributed equally to this paper.)
- 119 *Barium isotopic composition in large stardust SiC grains from the Murchison meteorite* J. N. Ávila, T. R. Ireland, F. Gyngard, E. Zinner, G. Mallmann, **M. Lugaro**, P. Holden & S. Amari, 2013, *Geochimica Cosmochimica Acta*, 120, 628
- 118 *Fluorine Variations in the Globular Cluster NGC 6656 (M22): Implications for Internal Enrichment Timescales* V. D' Orazi, S. Lucatello, **M. Lugaro**, R. Gratton, G. Angelou, A. Bragaglia, E. Carretta, A. Alves-Brito, I. I. Ivans, T. Masseron & A. Mucciarelli, 2013, *The Astrophysical Journal*, 763, 22
- 117 *Short-lived radioactivity in the early solar system: the Super-AGB hypothesis*, **M. Lugaro**, C. L. Doherty, A. I. Karakas, S. T. Maddison, K. Liffman, D. A. Garcia-Hernandez, L. Siess & J. C. Lattanzio, 2012, *Meteoritics and Planetary Science*, 47, 1998
- 116 *Can Galactic Chemical Evolution Explain the Oxygen Isotopic Variations in the Solar System?* **M. Lugaro**, K. Liffman, T. R. Ireland & S. T. Maddison, 2012, *The Astrophysical Journal*, 759, 51
- 115 *New determination of the $^{13}\text{C}(\alpha,n)^{16}\text{O}$ reaction rate and its influence on the s-process nucleosynthesis in AGB stars* G. Bing, Z. H. Li, **M. Lugaro** and 21 coauthors, 2012, *The Astrophysical Journal*, 756, 193
- 114 *Nucleosynthesis in the Brightest Galactic Asymptotic Giant Branch stars* A. I. Karakas, D. A. Garcia-Hernandez & **M. Lugaro**, 2012, *The Astrophysical Journal*, 751, 8
- 113 *Rubidium, zirconium, and lithium production in intermediate-mass asymptotic giant branch stars* M. A. van Raai, **M. Lugaro**, A. I. Karakas, D. A. Garcia-Hernandez & D. Yong, 2012, *Astronomy & Astrophysics*, 540, A44
- 112 *The s-process in asymptotic giant branch stars of low metallicity and the composition of carbon-enhanced metal-poor stars* **M. Lugaro**, A. I. Karakas, R. J. Stancliffe & C. Rijs, 2012, *The Astrophysical Journal*, 747, 1
- 111 *Tungsten isotopic composition in stardust SiC grains from the Murchison meteorite: constraints on the s process in the Hf-Ta-W-Re-Os region* J. N. Ávila, **M. Lugaro**, T. R. Ireland,

- F. Gyngard, E. Zinner, S. Cristallo, P. Holden, J. Buntain, S. Amari, & A. I. Karakas, 2012, *The Astrophysical Journal*, 744, 1
- 110 *Evolution and nucleosynthesis of extremely metal-poor and metal-free low- and intermediate-mass stars II. s-process nucleosynthesis during the core He flash* S. W. Campbell, **M. Lugaro** & A. I. Karakas, 2010, *Astronomy & Astrophysics Letters*, 522, 6 (**Note:** the first two authors have contributed equally to this paper.)
- 109 *The Ubiquity of the Rapid Neutron-Capture Process* I. U. Roederer, J.J. Cowan, A.I. Karakas, K.-L. Kratz, **M. Lugaro**, J. Simmerer, K. Farouqi & C. Sneden, 2010, *The Astrophysical Journal*, 724, 975
- 108 *Rb-Rich Asymptotic Giant Branch Stars in the Magellanic Clouds* D. A. García-Hernández, A. Manchado, D. L. Lambert, B. Plez, P. García-Lario, F. D'Antona, **M. Lugaro**, A. I. Karakas & M. A. van Raai, 2009, *The Astrophysical Journal Letters*, 705, 31
- 107 *The role of massive AGB stars in the early composition of the solar system* J. M. Trigo-Rodríguez, D. A. García-Hernández, **M. Lugaro**, A. I. Karakas, M. A. van Raai, P. García-Lario & A. Manchado, 2009, *Meteoritics and Planetary Science*, 44, 627
- 106 *An Unusual Presolar Silicon Carbide Grain from a Supernova: Implications for the production of Silicon-29 in Type II Supernovae* P. Hoppe, J. Leitner, B. S. Meyer, L.-S. The, **M. Lugaro** & S. Amari, 2009, *The Astrophysical Journal Letters*, 691, 20
- 105 *Nucleosynthesis Predictions for Intermediate-Mass AGB Stars: Comparison to Observations of Type I Planetary Nebulae* A. I. Karakas, M. A. van Raai, **M. Lugaro**, N. C. Sterling & H. L. Dinerstein, 2009, *The Astrophysical Journal*, 690, 1130
- 104 *Fluorine in carbon-enhanced metal-poor stars: a binary scenario* **M. Lugaro**, S. E. de Mink, R. G. Izzard, S. W. Campbell, A. I. Karakas, S. Cristallo, O. R. Pols, J. C. Lattanzio, O. Straniero, R. Gallino & T. C. Beers 2008, *Astronomy & Astrophysics Letters*, 484, 27 (**Note:** the first two authors have contributed equally to this paper.)
- 103 *New reaction rate for $^{16}\text{O}(p,\gamma)^{17}\text{F}$ and its influence on the oxygen isotopic ratios in massive AGB stars* C. Iliadis, C. Angulo, P. Descouvemont, **M. Lugaro** & P. Mohr, 2008, *Physical Review C*, 77, id. 045802
- 102 *The impact of the $^{18}\text{F}(\alpha,p)^{21}\text{Ne}$ reaction on asymptotic giant branch star nucleosynthesis* A. I. Karakas, H. Y. Lee, **M. Lugaro**, J. Goerres & M. Wiescher, 2008, *The Astrophysical Journal*, 676, 1254 (**Note:** the first three authors have contributed equally to this paper.)
- 101 *On the solar abundance of Indium* N. Vitas, I. Vince, **M. Lugaro**, O. Adriyenko, M. Gošić & R. J. Rutten, 2008, *Monthly Notices of the Royal Astronomical Society*, 384, 370
- 100 *Reaction rate uncertainties and ^{26}Al in AGB silicon carbide stardust* M. A. van Raai, **M. Lugaro**, A. I. Karakas & C. Iliadis, 2008, *Astronomy & Astrophysics*, 478, 521
- 99 *Stellar population synthesis of post-AGB stars: the s process in MACHO 47.2496.8* A. Bonačić Marinović, **M. Lugaro**, M. Reyniers & H. Van Winckel, 2007, *Astronomy & Astrophysics Letters*, 472, 1
- 98 *NanoSIMS isotopic analysis of small presolar grains: Search for Si_3N_4 grains from AGB stars and Al and Ti isotopic composition of rare presolar SiC grains* E. Zinner, S. Amari, R. Guinness, C. Jennings, A. F. Mertz, A. N. Nguyen, R. Gallino, P. Hoppe, **M. Lugaro**, L. R. Nittler & R. S. Lewis, 2007, *Geochimica et Cosmochimica Acta*, 71, 4786

- 97 *Reaction rate uncertainties and the operation of the NeNa and MgAl chains during HBB in intermediate-mass AGB stars* R.G. Izzard, **M. Lugaro**, A. I. Karakas, C. Iliadis & M. van Raai, 2007, *Astronomy & Astrophysics*, 466, 641 (**Note:** the first two authors have contributed equally to this paper.)
- 96 *The s process in stellar population synthesis: a new approach for understanding AGB stars* A. Bonačić Marinović, R. G. Izzard, **M. Lugaro** & O. R. Pols, 2007, *Astronomy & Astrophysics*, 469, 1013
- 95 *Germanium production in asymptotic giant branch stars* A. I. Karakas, **M. Lugaro** & R. Gallino, 2007, *The Astrophysical Journal Letters*, 656, 73
- 94 *On the asymptotic giant branch star origin of peculiar spinel grain OC2* **M. Lugaro**, A. I. Karakas, L. R. Nittler, C. M. O'D. Alexander, P. Hoppe, C. Iliadis & J. C. Lattanzio, 2007, *Astronomy & Astrophysics*, 461, 657
- 93 *Population nucleosynthesis in single and binary stars I: model* R. G. Izzard, L. M. Dray, A. I. Karakas, **M. Lugaro** & C. A. Tout, 2006, *Astronomy & Astrophysics*, 460, 565
- 92 *Silicon and carbon isotopic ratios in AGB stars: SiC grain data, models, and the galactic evolution of the Si isotopes* E. Zinner, L. R. Nittler, R. Gallino, A. I. Karakas, **M. Lugaro**, O. Straniero & J. C. Lattanzio, 2006, *The Astrophysical Journal*, 650, 350
- 91 *Cosmological Implications of Dwarf Spheroidal Chemical Evolution* Y. Fenner, B. K. Gibson, R. Gallino & **M. Lugaro**, 2006, *The Astrophysical Journal*, 646, 184
- 90 *The uncertainties in the Neon-22+alpha-capture reaction rates and the production of the heavy magnesium isotopes in asymptotic giant stars of intermediate mass* A. I. Karakas, **M. Lugaro**, M. Wiescher, J. Goerres & C. Ugalde, 2006, *The Astrophysical Journal*, 643, 471
- 89 *The effect of the $^{19}\text{F}(\alpha, p)^{22}\text{Ne}$ reaction rate uncertainty on the yield of fluorine from Wolf-Rayet Stars* R. J. Stancliffe, **M. Lugaro**, C. Ugalde, C. A. Tout, J. Görres, & M. Wiescher, 2005, *Monthly Notices of the Royal Astronomical Society*, 360, 375
- 88 *Reaction Rates Uncertainties and the Production of Fluorine-19 in AGB Stars* **M. Lugaro**, C. Ugalde, A. I. Karakas, J. Görres, M. Wiescher, J. C. Lattanzio & R. C. Cannon, 2004, *The Astrophysical Journal*, 615, 934
- 87 *The s Process in Rotating AGB Stars* F. Herwig, N. Langer & **M. Lugaro**, 2003, *The Astrophysical Journal*, 593, 1056
- 86 *Isotopic Compositions of Strontium, Zirconium, Molybdenum and Barium in Single Presolar SiC Grains and Asymptotic Giant Branch Stars* **M. Lugaro**, A. M. Davis, R. Gallino, M. J. Pellin, O. Straniero & F. Käppeler, 2003, *The Astrophysical Journal*, 593, 486
- 85 *Barium isotopes in Individual presolar silicon carbide grains from the Murchison meteorite* M. R. Savina, A. M. Davis, C. E. Tripa, M. J. Pellin, R. N. Clayton, R. S. Lewis, S. Amari, R. Gallino & **M. Lugaro**, 2003, *Geochimica et Cosmochimica Acta*, 67, 3201
- 84 *s-Process Nucleosynthesis in AGB Stars: a Test for Stellar Evolution* **M. Lugaro**, F. Herwig, J. C. Lattanzio, R. Gallino & O. Straniero, 2003, *The Astrophysical Journal*, 586, 1305
- 83 *Presolar SiC Grains of Type Y: Origin from Low-Metallicity AGB Stars* S. Amari, L. R. Nittler, E. Zinner, R. Gallino, **M. Lugaro** & R. J. Lewis, 2001, *The Astrophysical Journal*, 546, 248

- 82 *Improved Isotopic Ratio Determinations in IRC+10216, the progenitor mass and the s process* C. Kahane, E. Dufour, M. Busso, R. Gallino, **M. Lugaro**, M. Forestini & O. Straniero, 2000, *Astronomy & Astrophysics*, 357, 669
- 81 *Si Isotopic Ratios in Mainstream Presolar SiC Grains Revisited* **M. Lugaro**, E. Zinner, R. Gallino & S. Amari, 1999, *The Astrophysical Journal*, 527, 369
- 80 *Neutron Capture in Low Mass Asymptotic Giant Branch Stars: Cross Sections and Abundance Signatures* C. Arlandini, F. Käppeler, K. Wisshak, R. Gallino, **M. Lugaro**, M. Busso & O. Straniero, 1999, *The Astrophysical Journal*, 525, 886
- 79 *Evolution and Nucleosynthesis in Low Mass AGB Stars. II. Neutron Captures and the s Process* R. Gallino, C. Arlandini, M. Busso, **M. Lugaro**, C. Travaglio, O. Straniero, A. Chieffi & M. Limongi, 1998, *The Astrophysical Journal*, 497, 388
- 78 *Meteoritic Silicon Carbide Grains with Unusual Si-isotopic Composition: Evidence for an Origin in Low-mass Low-metallicity AGB Stars* P. Hoppe, P. Annen, R. Strebhel, P. Eberhardt, R. Gallino, **M. Lugaro**, S. Amari & R. S. Lewis, 1997, *The Astrophysical Journal Letters*, 487, 101

Refereed Conference proceedings

- 77 *New ^{90,91,92,93,94,96}Zr neutron capture cross-sections* G. Tagliente, **M. Lugaro**, A. I. Karakas, P. M. Milazzo and the n_TOF collaboration, 2012, in Proc. of the Twelfth International Symposium on Nuclei in the Cosmos, Proceedings of Science, PoS(NIC-XII)25
- 76 *Krypton Isotopic Compositions in Mainstream SiC Stardust Grains* J. Buntain, **M. Lugaro**, C. Iliadis, R. Raut, R., A. Tonchev & A. I. Karakas, 2012, in Proc. of the Twelfth International Symposium on Nuclei in the Cosmos, Proceedings of Science, PoS(NIC-XII)144
- 75 *Indirect Measurement of Astrophysical ¹³C(α , n)¹⁶O S-Factors* B. Guo, Z. H. Li, 18 coauthors, **M. Lugaro** & J. Buntain, 2012, *Plasma Science and technology*, 14, 357
- 74 *Heavy Element Abundances in Planetary Nebulae: A Theorist's Perspective* A. I. Karakas, & **M. Lugaro**, 2010, *Publications of the Astronomical Society of Australia*, 27, 227
- 73 *Wind composition beyond the tip of the AGB and its relevance to stardust grains* J. Buntain, **M. Lugaro**, R. J. Stancliffe, A. I. Karakas, L. R. Nittler & P. Hoppe, 2010, in Proc. of the Eleventh International Symposium on Nuclei in the Cosmos, Proceedings of Science, PoS(NIC-XI)139
- 72 *Models and observations of the s process in AGB stars* **M. Lugaro**, A. I. Karakas & S. Bisterzo, 2008, in Proc. of the Tenth International Symposium on Nuclei in the Cosmos, Proceedings of Science, PoS(NIC-IX)034 (invited review)
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- 70 *New discoveries and challenges for the s process in AGB stars* **M. Lugaro** & M. A. van Raai, 2008, *Journal of Physics G*, 35, 014007 (invited review)
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