

PUBLICATION LIST (AS A FIRST AUTHOR)

Publications in peer-reviewed journals

1. *Synthesis of actinides and short-lived radionuclides during i-process nucleosynthesis in AGB stars*
Choplin, A.; Goriely, S.; Siess, L. and Martinet, S.
2025, EPJA, 61, 4 [\[ADS\]](#)
2. *Proton ingestion in AGB stars as a possible explanation for J-type stars and AB2 grains*
Choplin, A.; Siess, L. and Goriely, S.
2024, A&A 691, L7 [\[ADS\]](#)
3. *Production of lithium and heavy elements in AGB stars experiencing PIEs*
Choplin, A.; Siess, L.; Goriely, S. and Martinet, S.
2024, Galaxies, Vol. 12, Issue 5 [\[ADS\]](#)
4. *The intermediate neutron capture process. V. The i-process in AGB stars with overshoot*
Choplin, A.; Siess, L.; Goriely, S. and Martinet, S.
2024, A&A 684, A206 [\[ADS\]](#)
5. *Synthesis of Thorium and Uranium in AGB stars*
Choplin, A.; Goriely, S.; Siess, L.
2022, A&A 667, L13 [\[ADS\]](#)
6. *The intermediate neutron capture process. III. The i-process in AGB stars of different masses and metallicities without overshoot*
Choplin, A.; Siess, L.; Goriely, S.
2022, A&A 667, A155 [\[ADS\]](#)
7. *The p-process in exploding rotating massive stars*
Choplin, A.; Goriely, S.; Hirschi, R.; Tominaga, N.; Meynet, G.
2022, A&A 661, A86 [\[ADS\]](#)
8. *The intermediate neutron capture process. I. Development of the i-process in low-metallicity low-mass AGB stars*
Choplin, A.; Siess, L.; Goriely, S.
2021, A&A 648, A119 [\[ADS\]](#) + corrigendum : **2022**, A&A 662, C3 [\[ADS\]](#)
9. *A strong neutron burst in jet-like supernovae of spinstars*
Choplin, A.; Tominaga, N. and Meyer B. S.
2020, A&A, 639, A126 [\[ADS\]](#)
10. *Inferring the velocity of early massive stars from the abundances of extremely metal-poor stars*
Choplin, A.; Tominaga, N. and Ishigaki, M. N.
2019, A&A, 632, A62 [\[ADS\]](#)
11. *Non standard s-process in massive rotating stars. Yields of 10 – 150 M_⊙ models at Z = 10⁻³*
Choplin, A.; Hirschi, R.; Meynet, G.; Ekström, S.; Chiappini, C. and Laird, A.
2018, A&A, 618, A133 [\[ADS\]](#)
12. *Are some CEMP-s stars the daughters of spinstars?*

Choplin, A.; Hirschi, R.; Meynet, G. and Ekström, S.
2017, A&A, 607, L3 [\[ADS\]](#)

13. *Effects of axions on Population III stars*

Choplin, A.; Coc, A.; Meynet, G.; Olive, Keith A.; Uzan, J.-P. and Vangioni, E.
2017, A&A, 605, A106 [\[ADS\]](#)

14. *Pre-supernova mixing in CEMP-no source stars*

Choplin, A.; Ekström, S.; Meynet, G.; Maeder, A.; Georgy, C. and Hirschi, R.
2017, A&A, 605, A63 [\[ADS\]](#)

15. *Constraints on CEMP-no progenitors from nuclear astrophysics*

Choplin, A.; Maeder, A.; Meynet, G. and Chiappini, C.
2016, A&A, 593, A36 [\[ADS\]](#)

Publications in conference proceedings

16. *The intermediate neutron-capture process in AGB stars*

Choplin, A.; Siess, L.; Goriely, S.

2023, Nuclear Physics in Astrophysics - X (NPA-X 2022), Geneva, Switzerland, Edited by Freeman, S.; Lederer-Woods, C.; Manna, A.; Mengoni, A.; EPJ Web of Conferences, Volume 279, id.07001 [\[ADS\]](#)

17. *Early Rotating Massive Stars and Abundances of Extremely Metal-Poor Stars*

Choplin, A.

2020, in Proceedings of the 15th International Symposium on Origin of Matter and Evolution of Galaxies (OMEG15), J. Phys. Soc. Jpn. [\[LINK\]](#)

18. *Nucleosynthesis in early rotating massive stars and chemical composition of CEMP stars*

Choplin, A. and Hirschi, R.

2020, NPA IX conference proceeding. in Journal of Physics Conference Series, Vol.1668 [\[ADS\]](#)

19. *Nucleosynthesis in the first massive stars*

Choplin, A.; Meynet, G.; Maeder, A.; Hirschi, R. and Chiappini, C.

2018, in Journal of Physics Conference Series, Vol. 940, Journal of Physics Conference Series, 012021 [\[ADS\]](#)

20. *Toward the first stars: hints from the CEMP-no stars*

Choplin, A.

2017, in SF2A-2017: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics, ed. C. Reylé, P. Di Matteo, F. Herpin, E. Lagadec, A. Lançon, Z. Meliani, & F. Royer, 93–96 [\[ADS\]](#)

21. *Insights on the First Stars from CEMP-no Stars*

Choplin, A.; Meynet, G.; Maeder, A.; Hirschi, R.; Ekström, S. and Chiappini, C.

2017, in 14th International Symposium on Nuclei in the Cosmos (NIC2016), ed. S. Kubono, T. Kajino, S. Nishimura, T. Isobe, S. Nagataki, T. Shima, & Y. Takeda, 020202 [\[ADS\]](#)

22. *Clues on the first stars from CEMP-no stars*

Choplin, A.; Meynet, G.; Maeder, A.; Hirschi, R.; Ekström, S. and Chiappini, C.

2016, in IAU Symposium, Vol. 317, The General Assembly of Galaxy Halos: Structure, Origin and Evolution, ed. A. Bragaglia, M. Arnaboldi, M. Rejkuba, & D. Romano, 282–283 [\[ADS\]](#)

23. *Clues about the first stars from CEMP-no stars*

Choplin, A.; Meynet, G. and Maeder, A.

2015, in SF2A-2015: Proceedings of the Annual meeting of the French Society Annual meeting of the French Society of Astronomy and Astrophysics, ed. F. Martins, S. Boissier, V. Buat, L. Cambrésy, & P. Petit, 355–358 [\[ADS\]](#)