

Publications

First author peer-reviewed

1. **Amarsi A. M.**, Liljegren S., Nissen P. E.
3D non-LTE iron abundances in FG-type dwarfs
2022, *A&A*, 668, A68
2. **Amarsi A. M.**, Grevesse N., Asplund M., Collet R.
The solar carbon, nitrogen, and oxygen abundances from a 3D LTE analysis of molecular lines
2021, *A&A*, 656, A113
3. **Amarsi A. M.**, Lind K., Osorio Y., Nordlander T., Bergemann M., et al. (21 more)
The GALAH Survey: Non-LTE departure coefficients for large spectroscopic surveys
2020, *A&A*, 642, A62
4. **Amarsi A. M.**, Grevesse N., Gruner J., Asplund M., Barklem P. S., Collet R.
The 3D non-LTE solar nitrogen abundance from atomic lines
2020, *A&A*, 636, A120
5. **Amarsi A. M.**, Nissen P. E., Skúladóttir Á.
Carbon, oxygen, and iron abundances in disk and halo stars. Implications of 3D non-LTE spectral line formation
2019, *A&A*, 630, A104
6. **Amarsi A. M.**, Barklem P. S.
Excitation and charge transfer in low-energy hydrogen atom collisions with neutral carbon and nitrogen
2019, *A&A*, 625, A78
7. **Amarsi A. M.**, Barklem P. S., Collet R., Grevesse N., Asplund M.
3D non-LTE line formation of neutral carbon in the Sun
2019, *A&A*, 624, A111
8. **Amarsi A. M.**, Nissen P. E., Asplund M., Lind K., Barklem P. S.
Carbon and oxygen in metal-poor halo stars
2019, *A&A*, 622, L4
9. **Amarsi A. M.**, Barklem P. S., Asplund M., Collet R., Zatsarinny O.
Inelastic O+H collisions and the O I 777 nm solar centre-to-limb variation
2018, *A&A*, 616, A89
10. **Amarsi A. M.**, Nordlander T., Barklem P. S., Asplund M., Collet R., Lind K.
Effective temperature determinations of late-type stars based on 3D non-LTE Balmer line formation
2018, *A&A*, 615, A139
11. **Amarsi A. M.**, Asplund M.
The solar silicon abundance based on 3D non-LTE calculations
2017, *MNRAS*, 464, 264
12. **Amarsi A. M.**, Lind K., Asplund M., Barklem P. S., Collet R.
Non-LTE line formation of Fe in late-type stars: III. 3D non-LTE analysis of metal-poor stars
2016, *MNRAS*, 463, 1518
13. **Amarsi A. M.**, Asplund M., Collet R., Leenaarts J.
Non-LTE oxygen line formation in 3D hydrodynamic model stellar atmospheres
2016, *MNRAS*, 455, 3735

14. **Amarsi A. M.**, Asplund M., Collet R., Leenaarts J.
The Galactic chemical evolution of oxygen inferred from 3D non-LTE spectral line formation calculations
2015, *MNRAS*, 454, L11
 15. **Amarsi A. M.**
On line contribution functions and examining spectral line formation in 3D model stellar atmospheres
2015, *MNRAS*, 452, 1612
-

Second author peer-reviewed

16. Sharda P., **Amarsi A. M.**, Grasha K., Krumholz M. R., Yong D., et al. (3 more)
The impact of carbon and oxygen abundances on the metal-poor initial mass function
2023, *MNRAS*, 518, 3985
 17. Asplund M., **Amarsi A. M.**, Grevesse N.
The chemical make-up of the Sun: A 2020 vision
2021, *A&A*, 653, A141
 18. Li W., **Amarsi A. M.**, Papoulia A., Ekman J., Jönsson P.
Extended theoretical transition data in C I – IV
2021, *MNRAS*, 502, 3780
 19. Barklem P. S., **Amarsi A. M.**, Grumer J., Eklund G., Rosén S., et al. (4 more)
Mutual neutralisation in $Li^+ + H^-/D^-$ and $Na^+ + H^-/D^-$ collisions: Implications of experimental results for non-LTE modeling of stellar spectra
2021, *ApJ*, 908, 245
 20. Reggiani H., **Amarsi A. M.**, Lind K., Barklem P. S., Zatsarinny O., et al. (5 more)
Non-LTE analysis of K I in late type stars
2019, *A&A*, 627, A177
 21. Vasilyev V., **Amarsi A. M.**, Ludwig H. G., Lemasle B.
2D non-LTE O I 777 nm line formation in radiation hydrodynamics simulations of Cepheid atmospheres
2019, *A&A*, 624, A85
 22. Lind K., **Amarsi A. M.**, Asplund M., Barklem P. S., Bautista M., et al. (5 more)
Non-LTE line formation of Fe in late-type stars: IV. Modelling of the solar centre-to-limb variation in 3D
2017, *MNRAS*, 468, 4311
 23. Nordlander T., **Amarsi A. M.**, Lind K., Asplund M., Barklem P. S., et al. (3 more)
3D NLTE analysis of the most iron-deficient star, SMSS0313-6708
2017, *A&A*, 597, A6
-

Other peer-reviewed

24. Aguado D. S., Salvadori S., Skúladóttir Á., et al. (6 more)
PISN-explorer: hunting the descendants of very massive first stars
2023, *MNRAS*, in press
25. Buldgen G., Eggenberger P., Noels A., et al. (4 more)
Higher metal abundances do not solve the solar problem
2023, *A&A*, in press
26. Carlos M., Marino A. F., Milone A. P., et al. (8 more)
The chemical compositions of multiple stellar populations in the globular cluster NGC 2808
2023, *MNRAS*, 519, 1695

27. Mallinson J. W. E., Lind K., **Amarsi A. M.**, et al. (4 more)
Titanium abundances in late-type stars. I. 1D non-local thermodynamic equilibrium modelling in benchmark dwarfs and giants
[2022, A&A, 668, A103](#)
 28. Grumer J., Eklund G., **Amarsi A. M.**, et al. (7 more)
State-Resolved Mutual Neutralization of Mg^+ and D^-
[2022, Phys. Rev. Lett., 128, 033401](#)
 29. Buder S., Sharma S., Kos J., et al. (44 more)
The GALAH+ Survey: Third data release
[2021, MNRAS, 506, 150](#)
 30. Clark J. T., Clerté M., Hinkel N. R., et al. (29 more)
The GALAH Survey: Using Galactic Archaeology to refine our knowledge of TESS target stars
[2021, MNRAS, 504, 4968](#)
 31. Skúladóttir Á., Salvadori S., **Amarsi A. M.**, et al. (9 more)
Zero-metallicity Hypernova Uncovered by an Ultra-metal-poor Star in the Sculptor Dwarf Spheroidal Galaxy
[2021, ApJ, 915, L30](#)
 32. Cordoni G., Da Costa G. S., Yong D., et al. (16 more)
Exploring the Galaxy's halo and very metal-weak thick disc with SkyMapper and Gaia DR2
[2021, MNRAS, 503, 2539](#)
 33. Zhou Y., Nordlander T., Casagrande L., et al. (5 more)
The relationship between photometric and spectroscopic oscillation amplitudes from 3D stellar atmosphere simulations
[2021, MNRAS, 503, 13](#)
 34. Wang E. X., Nordlander T., Asplund M., et al. (3 more)
3D NLTE spectral line formation of lithium in late-type stars
[2021, MNRAS, 500, 2159](#)
 35. Gao X., Lind K., **Amarsi A. M.**, et al. (22 more)
The GALAH Survey: A new constraint on cosmological lithium and Galactic lithium evolution from warm dwarf stars
[2020, MNRAS, 497, L30](#)
 36. Gao X., Lind K., **Amarsi A. M.**, et al. (27 more)
The GALAH Survey: Verifying abundance trends in the open cluster M67 using non-LTE modelling
[2018, MNRAS, 481, 2666](#)
 37. MacLean B. T., Campbell S. W., **Amarsi A. M.**, et al. (7 more)
On the AGB stars of M4: A robust disagreement between spectroscopic observations and theory
[2018, MNRAS, 481, 373](#)
 38. Buder S., Asplund M., Duong L., et al. (41 more)
The GALAH Survey: Second data release
[2018, MNRAS, 478, 4513](#)
 39. Bergemann M., Collet R., **Amarsi A. M.**, et al. (3 more)
Non-local thermodynamic equilibrium stellar spectroscopy with 1D and <3D> models: I. Methods and application to magnesium abundances in standard stars
[2017, ApJ, 847, 15](#)
-

Other publications

40. de Jong R. S., Agertz O., Berbel A. A., et al. (335 more)
4MOST: Project overview and information for the First Call for Proposals
2019, *The Messenger*, 175, 3
-