

List of publications of Thibault Merle

Peer-reviewed journal articles (16)

Submitted for publication

1. **Merle, T.**, Van Eck, S., Jorissen, A., Van Der Swaelmen, M., Masseron, T., Zwitter, T. T., et al. (s.d.). The Gaia-ESO Survey: double, triple and quadruple-line spectroscopic binary candidates. *Astronomy & astrophysics*.

2017

2. Mucciarelli, A. A., **Merle, T.**, & Bellazzini, M. (2017, April). The potassium abundance in the globular clusters NGC 104, NGC 6752 and NGC 6809. *Astronomy and astrophysics abstracts*, 600(104), 8. doi:10.1051/0004-6361/201730410

2016

3. Ezzeddine, R. R., **Merle, T.**, & Plez, B. (2016, September). Non-LTE iron abundances in cool stars: The role of hydrogen collisions. *Astronomische Nachrichten*, 337(8-9), 850-854. doi:10.1002/asna.201612384
4. **Merle, T.**, Jorissen, A., Van Eck, S., Masseron, T., & Van Winckel, H. (2016, February). To Ba or not to Ba: Enrichment in s-process elements in binary systems with WD companions of various masses. *Astronomy & astrophysics*, 586, A151 (16 pp.). doi:10.1051/0004-6361/201526944
5. Jorissen, A., Van Eck, S., Van Winckel, H., **Merle, T.**, Boffin, H., Andersen, J., Nordstrom, B. B., Udry, S. D., Masseron, T., Lenaerts, & Waelkens, C. (2016). Binary properties of CH and Carbon-Enhanced Metal-Poor stars. *Astronomy & astrophysics*, 586, A158 (17 pp.). doi:10.1051/0004-6361/201526992

2015

6. Guitou, M., Spielfiedel, A., Rodionov, Yakovleva, Belyaev, A., **Merle, T.**, Thévenin, F. F., & Feautrier, N. (2015, November 25). Quantum chemistry and nuclear dynamics as diagnostic tools for stellar atmosphere modeling. *Chemical physics*, 462, doi:10.1016/j.chemphys.2015.06.003, 94-103. doi:10.1016/j.chemphys.2015.06.003
7. **Merle, T.**, Thévenin, F. F., & Zatsarinny, O. (2015, May). Effective collision strengths between Mg I and electrons. *Astronomy & astrophysics*, 577(113). doi:10.1051/0004-6361/201525914
8. Mucciarelli, A. A., Bellazzini, M., **Merle, T.**, Plez, B., Dalessandro, E., & Ibata, R. (2015, January). Potassium: a new actor on the globular cluster chemical evolution stage. The case of NGC 2808. *The astrophysical journal. Letters.*, 1501.03161. doi:10.1088/0004-637X/801/1/68

2014

9. **Merle, T.**, Jorissen, A., Masseron, T., Van Eck, S., Siess, L., & Van Winckel, H. (2014). IP Eridani: A surprising long-period binary system hosting a He white dwarf. *Astronomy & astrophysics*, 567, A30. doi:10.1051/0004-6361/201423800

2013

10. Bellazzini, R., Mucciarelli, A. A., Ibata, R., Sollima, A., Dalessandro, E., Chapman, S., Nipoti, C., **Merle, T.**, Beccari, G., Lardo, C. C., Bragaglia, A. A., Carretta, E. E., & Pancino, E. E. (2013). The strange case of NGC2419: stellar populations, chemical composition, dynamics. *Memorie della Società astronomica italiana*, *84*, 1301.3298, 175.

2012

11. Lebzelter, T., Heiter, U. U., Abia, C., Eriksson, K., Ireland, M., Neilson, H., Nowotny, W., Maldonado, J., **Merle, T.**, Peterson, R., Plez, B., Short, C., Wahlgren, G., Worley, C. C., Aringer, B., Bladh, S., De Laverny, P., Goswami, A., Mora, A., Norris, R., Recio-Blanco, A., Scholz, M., Thévenin, F., Tsuji, T., Kordopatis, G., Montesinos, B., & Wing, R. (2012, November). Comparative modelling of the spectra of cool giants. *Astronomy & astrophysics*, *547*, 1209.2656, A108. doi:10.1051/0004-6361/201219142
12. Mucciarelli, A. A., Bellazzini, M., Ibata, R., **Merle, T.**, Chapman, S., Dalessandro, E., & Sollima, A. (2012, November). News from the Galactic suburbia: the chemical composition of the remote globular cluster NGC 2419. *Monthly notices of the Royal Astronomical Society*, *426*, 1208.0195, 2889-2900. doi:10.1111/j.1365-2966.2012.21847.x
13. Fabrizio, M., **Merle, T.**, Thévenin, F., Nonino, M., Bono, G., Stetson, P., Ferraro, I., Iannicola, G., Monelli, M., Walker, A., Buonanno, R., Caputo, F., Corsi, C., Dall'Ora, M., Degl'Innocenti, S., Franco, P., Gilmozzi, R., Marconi, M., Pietrinferni, A., Prada Moroni, P., Primas, F., Pulone, L., Ripepi, V., & Romaniello, M. (2012, June). The Carina Project. V. The Impact of NLTE Effects on the Iron Content. *Publications of the Astronomical Society of the Pacific*, *124*, 1204.4612, 519-534. doi:10.1086/666480

2011

14. **Merle, T.**, Thévenin, F., Pichon, B., & Bigot, L. (2011, December). A grid of non-local thermodynamic equilibrium corrections for magnesium and calcium in late-type giant and supergiant stars: application to Gaia. *Monthly notices of the Royal Astronomical Society*, *418*, 1107.6015, 863-887. doi:10.1111/j.1365-2966.2011.19540.x
15. Berio, P., **Merle, T.**, Thévenin, F., Bonneau, D., Mourard, D., Chesneau, O., Delaa, O., Ligi, R., Nardetto, N., Perraut, K., Pichon, B., Stee, P., Tallon-Bosc, I., Clausse, J., Spang, A., McAlister, H., Ten Brummelaar, T. T., Sturmann, J. J., Sturmann, L. L., Turner, N., Farrington, C. C., & Goldfinger, P. (2011, November). Chromosphere of K giant stars. Geometrical extent and spatial structure detection. *Astronomy & astrophysics*, *535*, 1109.5476, A59. doi:10.1051/0004-6361/201117479
16. Fabrizio, M., Nonino, M., Bono, G., Ferraro, I., Franco, P., Iannicola, G., Monelli, M., Thévenin, F., Stetson, P., Walker, A., Buonanno, R., Caputo, F., Corsi, C., Dall'Ora, M., Gilmozzi, R., James, C., **Merle, T.**, Pulone, L., & Romaniello, M. (2011, April). The Carina Project. IV. Radial Velocity Distribution. *Publications of the Astronomical Society of the Pacific*, *123*, 1102.3038, 384-401. doi:10.1086/659743

Papers published in national and international conferences or symposium proceedings (11)

2015

1. **Merle, T.**, Jorissen, A., Van Eck, S., Masseron, T., & Van Winckel, H. (2015, December). s-Process Abundances in Binary Stars With White Dwarfs. *The Physics of Evolved Stars:*

A Conference Dedicated to the Memory of Olivier Chesneau: Vol. 71 (pp. 343-344). (EAS Publications Series). doi:10.1051/eas/1571081

2. Van Eck, S., **Merle, T.**, Jorissen, A., Van Winckel, H., Gorlova, N., Vos, J. J., Exter, K., Oestensen, R. R., & van de Steene, G. (2015, August). Binarity among C-enriched and related stars. In F. Kerschbaum, J. Hron, & B. Wing (Eds.), *Astronomical Society of the Pacific Conference Series*: Vol. 497 (p. 169). San Francisco: Astronomical Society of the Pacific.

2014

3. Abia, C., Van Eck, S., Masseron, T., **Merle, T.**, Worley, C. C., & Zwitter, T. (2014, July 01). Carbon-stars within the Gaia-ESO Survey. *The Milky Way Unravalled by Gaia*: Vol. 67-68 (pp. pp.349-349). EAS Publications Series, EDP Sciences.

2013

4. Ezzeddine, R., **Merle, T.**, & Plez, B. (2013, December). NLTE Iron abundance determination in Red Giants. *EAS Publications Series*: Vol. 63 (pp. 407-409). (EAS Publications Series). doi:10.1051/eas/1363046
5. **Merle, T.**, Thévenin, F., Belyaev, A., Guitou, M., Feautrier, N., Spielfiedel, A., & Zatsarinny, O. (2013, December). Impact of new atomic data for the formation of the Mg I b triplet lines in benchmark stars. *EAS Publications Series*: Vol. 63 (pp. 331-336). (EAS Publications Series). doi:10.1051/eas/1363037
6. **Merle, T.**, Thévenin, F., Guitou, M., Feautrier, N., Spielfiedel, A., & Zatsarinny, O. (2013, November). Impact of new atomic data for the formation of the Mg I 4571 AA line in benchmark stars. *SF2A-2013: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics* (pp. 247-251).
7. Ezzeddine, R., **Merle, T.**, & Plez, B. (2013, November). Non-LTE Iron abundance determination of a sample of Kepler Red Giants. *SF2A-2013: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics* (pp. 119-121).

2012

8. **Merle, T.**, Thévenin, F., Pichon, B., & Bigot, L. (2012, December). Impact of non-LTE effects on the IR Ca II triplet and the Mg I 8736 AA equivalent widths in late-type giant and super-giant stars. *SF2A-2012: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics* (pp. 369-373).
9. **Merle, T.**, Fabrizio, M., Thévenin, F., Nonino, M., & Bono, G. (2012, December). Non-LTE effects on the ionization equilibrium of Fe I/Fe II: Application to the red giants of Carina dSph Galaxy. *SF2A-2012: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics* (pp. 97-101).

2010

10. **Merle, T.**, Thévenin, F., Pichon, B., & Bigot, L. (2010, December). Improvement of atomic models for NLTE radiative transfer in atmospheres of late type stars. *SF2A-2010: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics* (p. 379).

2009

11. **Merle, T.**, Santoro, L., Pichon, B., Bigot, L., Thévenin, F., & Morel, P. (2009, November). Some aspects of stellar modelling in the Gaia Team at the Observatoire de la Côte d'Azur. *SF2A-2009: Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics* (p. 61).

Research reports, book reviews, letters to the editor, working papers (1)

2015

1. **Merle, T.**, Thévenin,, Feautrier, N., Zatsarinny, O., Guitou, M., & Spielfiedel, A. (2015). *Impact of new atomic data for NLTE studies of neutral magnesium in cool stars: I. Test cases with a simple Mg I model atom.*

Miscellaneous (1)

2016

1. Masseron, T., **Merle, T.**, & Hawkins, K. K. (2016, May). *BACCHUS: Brussels Automatic Code for Characterizing High accuracy Spectra.* doi:10.20356/C4TG6R