## Publication List - Paul McMillan

Lund Observatory  $\diamond$  paul@astro.lu.se 19068 total citations  $\diamond$  1609 citations as first author

## **Key Publications**

- "Gaia Early Data Release 3. The Galactic anticentre", Gaia Collaboration, Antoja, T., Paul McMillan, Kordopatis, G., Ramos, P., Helmi, A., et al., 2021, A&A, 649, A8. (Citations to date 22)
- 2. "The Sixth Data Release of the Radial Velocity Experiment (RAVE). II. Stellar Atmospheric Parameters, Chemical Abundances, and Distances", Steinmetz, M., Guiglion, G., Paul McMillan, Matijevič, G., Enke, H., Kordopatis, G., et al., 2020, AJ, 160, 83. (Citations to date 34)
- 3. "Radial migration and vertical action in N-body simulations", Mikkola, D., **Paul McMillan** & Hobbs, D., 2020, MNRAS, 495, 3295. (Citations to date 8)
- 4. "Distances and parallax bias in Gaia DR2", Schönrich, R., **Paul McMillan** & Eyer, L., 2019, MNRAS, 487, 3568. (Citations to date 120)
- 5. "Gaia Data Release 2. Kinematics of globular clusters and dwarf galaxies around the Milky Way", Gaia Collaboration, Helmi, A., van Leeuwen, F., **Paul McMillan**, Massari, D., Antoja, T., et al., 2018, A&A, 616, A12. (Citations to date 422)
- 6. "Improved distances and ages for stars common to TGAS and RAVE", **Paul McMillan**, Kordopatis, G., Kunder, A., Binney, J., Wojno, J., Zwitter, T., et al., 2018, MNRAS, 477, 5279. (Citations to date 43)
- 7. "Understanding inverse metallicity gradients in galactic discs as a consequence of inside-out formation", Schönrich, R. & Paul McMillan, 2017, MNRAS, 467, 1154. (Citations to date 69)
- 8. "The mass distribution and gravitational potential of the Milky Way", **Paul McMillan**, 2017, MNRAS, 465, 76. (Citations to date 419)
- 9. "The Radial Velocity Experiment (RAVE): Fifth Data Release", Kunder, A., Kordopatis, G., Steinmetz, M., Zwitter, T., Paul McMillan, Casagrande, L., et al., 2017, AJ, 153, 75. (Citations to date 356)
- 10. "Torus mapper: a code for dynamical models of galaxies", Binney, J. & Paul McMillan, 2016, MNRAS, 456, 1982. (Citations to date 32)
- 11. "Analysing surveys of our Galaxy II. Determining the potential", **Paul McMillan** & Binney, J., 2013, MNRAS, 433, 1411. (Citations to date 33)
- 12. "Extending the Hyades", Paul McMillan, 2013, MNRAS, 430, 3276. (Citations to date 22)
- 13. "Mass models of the Milky Way", **Paul McMillan**, 2011, MNRAS, 414, 2446. (Citations to date 573)
- 14. "Models of our Galaxy II", Binney, J. & Paul McMillan, 2011, MNRAS, 413, 1889. (Citations to date 102)
- 15. "The uncertainty in Galactic parameters", **Paul McMillan** & Binney, J., 2010, MNRAS, 402, 934. (Citations to date 223)
- 16. "Disassembling the Galaxy with angle-action coordinates", **Paul McMillan** & Binney, J., 2008, MNRAS, 390, 429. (Citations to date 63)

## Other Publications

- 17. "Milky Way spiral arms from open clusters in Gaia EDR3", Castro-Ginard, A., **Paul McMillan**, Luri, X., Jordi, C., Romero-Gómez, M., Cantat-Gaudin, T., et al., 2021, A&A, 652, A162. (Citations to date 9)
- 18. "Gaia Early Data Release 3. The Gaia Catalogue of Nearby Stars", Gaia Collaboration, Smart, R., Sarro, L., Rybizki, J., Reylé, C., Robin, A., et al. (including **Paul McMillan**), 2021, A&A, 649, A6. (Citations to date 74)
- 19. "Gaia Early Data Release 3. Parallax bias versus magnitude, colour, and position", Lindegren, L., Bastian, U., Biermann, M., Bombrun, A., de Torres, A., Gerlach, E., et al. (including **Paul McMillan**), 2021, A&A, 649, A4. (Citations to date 195)
- "Gaia Early Data Release 3. The astrometric solution", Lindegren, L., Klioner, S., Hernández, J., Bombrun, A., Ramos-Lerate, M., Steidelmüller, H., et al. (including Paul McMillan), 2021, A&A, 649, A2. (Citations to date 259)
- 21. "Gaia Early Data Release 3. Summary of the contents and survey properties", Gaia Collaboration, Brown, A., Vallenari, A., Prusti, T., de Bruijne, J., Babusiaux, C., et al. (including **Paul McMillan**), 2021, A&A, 649, A1. (Citations to date 900)
- 22. "Gaia Early Data Release 3. Acceleration of the Solar System from Gaia astrometry", Gaia Collaboration, Klioner, S., Mignard, F., Lindegren, L., Bastian, U., **Paul McMillan**, et al., 2021, A&A, 649, A9. (Citations to date 26)
- 23. "Gaia Early Data Release 3. Structure and properties of the Magellanic Clouds", Gaia Collaboration, Luri, X., Chemin, L., Clementini, G., Delgado, H., **Paul McMillan**, et al., 2021, A&A, 649, A7. (Citations to date 32)
- 24. "The RAdial Velocity Experiment (RAVE): Parameterisation of RAVE spectra based on convolutional neural networks", Guiglion, G., Matijevič, G., Queiroz, A., Valentini, M., Steinmetz, M., Chiappini, C., et al. (including **Paul McMillan**), 2020, A&A, 644, A168. (Citations to date 8)
- 25. "The Sixth Data Release of the Radial Velocity Experiment (RAVE). I. Survey Description, Spectra, and Radial Velocities", Steinmetz, M., Matijevič, G., Enke, H., Zwitter, T., Guiglion, G., Paul McMillan, et al., 2020, AJ, 160, 82. (Citations to date 34)
- 26. "Kinematics with Gaia DR2: the force of a dwarf", Carrillo, I., Minchev, I., Steinmetz, M., Monari, G., Laporte, C., Anders, F., et al. (including **Paul McMillan**), 2019, MNRAS, 490, 797. (Citations to date 30)
- 27. "Voyage 2050 White Paper: All-Sky Visible and Near Infrared Space Astrometry", Hobbs, D., Brown, A., Høg, E., Jordi, C., Kawata, D., Tanga, P., et al. (including **Paul McMillan**), 2019, arXiv:1907.12535. (Citations to date 12)
- 28. "Radial abundance gradients in the outer Galactic disk as traced by main-sequence OB stars", Bragança, G., Daflon, S., Lanz, T., Cunha, K., Bensby, T., **Paul McMillan**, et al., 2019, A&A, 625, A120. (Citations to date 5)
- 29. "4MOST Consortium Survey 4: Milky Way Disc and Bulge High-Resolution Survey (4MIDABLE-HR)", Bensby, T., Bergemann, M., Rybizki, J., Lemasle, B., Howes, L., Kovalev, M., et al. (including **Paul McMillan**), 2019, Msngr, 175, 35. (Citations to date 13)
- "4MOST: Project overview and information for the First Call for Proposals", de Jong, R., Agertz,
  O., Berbel, A., Aird, J., Alexander, D., Amarsi, A., et al. (including Paul McMillan), 2019,
  Msngr, 175, 3. (Citations to date 145)

- 31. "4MOST Consortium Survey 3: Milky Way Disc and Bulge Low-Resolution Survey (4MIDABLE-LR)", Chiappini, C., Minchev, I., Starkenburg, E., Anders, F., Gentile Fusillo, N., Gerhard, O., et al. (including **Paul McMillan**), 2019, Msngr, 175, 30. (Citations to date 15)
- 32. "Gaia Data Release 2. Variable stars in the colour-absolute magnitude diagram", Gaia Collaboration, Eyer, L., Rimoldini, L., Audard, M., Anderson, R., Nienartowicz, K., et al. (including Paul McMillan), 2019, A&A, 623, A110. (Citations to date 91)
- 33. "Spiral arm crossings inferred from ridges in Gaia stellar velocity distributions", Quillen, A., Carrillo, I., Anders, F., **Paul McMillan**, Hilmi, T., Monari, G., et al., 2018, MNRAS, 480, 3132. (Citations to date 41)
- 34. "Gaia Data Release 2. The celestial reference frame (Gaia-CRF2)", Gaia Collaboration, Mignard, F., Klioner, S., Lindegren, L., Hernández, J., Bastian, U., et al. (including **Paul McMillan**), 2018, A&A, 616, A14. (Citations to date 119)
- 35. "Gaia Data Release 2. Observations of solar system objects", Gaia Collaboration, Spoto, F., Tanga, P., Mignard, F., Berthier, J., Carry, B., et al. (including **Paul McMillan**), 2018, A&A, 616, A13. (Citations to date 55)
- 36. "Gaia Data Release 2. Observational Hertzsprung-Russell diagrams", Gaia Collaboration, Babusiaux, C., van Leeuwen, F., Barstow, M., Jordi, C., Vallenari, A., et al. (including **Paul McMillan**), 2018, A&A, 616, A10. (Citations to date 505)
- 37. "Gaia Data Release 2. The astrometric solution", Lindegren, L., Hernández, J., Bombrun, A., Klioner, S., Bastian, U., Ramos-Lerate, M., et al. (including **Paul McMillan**), 2018, A&A, 616, A2. (Citations to date 1418)
- 38. "Gaia Data Release 2. Mapping the Milky Way disc kinematics", Gaia Collaboration, Katz, D., Antoja, T., Romero-Gómez, M., Drimmel, R., Reylé, C., et al. (including **Paul McMillan**), 2018, A&A, 616, A11. (Citations to date 258)
- 39. "Gaia Data Release 2. Summary of the contents and survey properties", Gaia Collaboration, Brown, A., Vallenari, A., Prusti, T., de Bruijne, J., Babusiaux, C., et al. (including **Paul McMillan**), 2018, A&A, 616, A1. (Citations to date 5465)
- 40. "Correlations between age, kinematics, and chemistry as seen by the RAVE survey", Wojno, J., Kordopatis, G., Steinmetz, M., **Paul McMillan**, Binney, J., Famaey, B., et al., 2018, MNRAS, 477, 5612. (Citations to date 11)
- 41. "Simple Distance Estimates for Gaia DR2 Stars with Radial Velocities", **Paul McMillan**, 2018, RNAAS, 2, 51. (Citations to date 22)
- 42. "Coma Berenices: The First Evidence for Incomplete Vertical Phase-mixing in Local Velocity Space with RAVE—Confirmed with Gaia DR2", Monari, G., Famaey, B., Minchev, I., Antoja, T., Bienaymé, O., Gibson, B., et al. (including **Paul McMillan**), 2018, RNAAS, 2, 32. (Citations to date 15)
- 43. "Gaia DR2 Confirms that Candidate Thorne-Żytkow Object HV 2112 is in the Small Magellanic Cloud", **Paul McMillan** & Church, R., 2018, RNAAS, 2, 18. (Citations to date 3)
- 44. "Is the Milky Way still breathing? RAVE-Gaia streaming motions", Carrillo, I., Minchev, I., Kordopatis, G., Steinmetz, M., Binney, J., Anders, F., et al. (including **Paul McMillan**), 2018, MNRAS, 475, 2679. (Citations to date 38)
- 45. "Climbing the cosmic ladder with stellar twins in RAVE with Gaia", Jofré, P., Traven, G., Hawkins, K., Gilmore, G., Sanders, J., Mädler, T., et al. (including **Paul McMillan**), 2017, MNRAS, 472, 2517. (Citations to date 11)

- 46. "Gaia Data Release 1. Testing parallaxes with local Cepheids and RR Lyrae stars", Gaia Collaboration, Clementini, G., Eyer, L., Ripepi, V., Marconi, M., Muraveva, T., et al. (including **Paul McMillan**), 2017, A&A, 605, A79. (Citations to date 79)
- 47. "The selection function of the RAVE survey", Wojno, J., Kordopatis, G., Piffl, T., Binney, J., Steinmetz, M., Matijevič, G., et al. (including **Paul McMillan**), 2017, MNRAS, 468, 3368. (Citations to date 35)
- 48. "Gaia Data Release 1. Open cluster astrometry: performance, limitations, and future prospects", Gaia Collaboration, van Leeuwen, F., Vallenari, A., Jordi, C., Lindegren, L., Bastian, U., et al. (including **Paul McMillan**), 2017, A&A, 601, A19. (Citations to date 81)
- 49. "RAVE stars in K2. I. Improving RAVE red giants spectroscopy using asteroseismology from K2 Campaign 1", Valentini, M., Chiappini, C., Davies, G., Elsworth, Y., Mosser, B., Lund, M., et al. (including **Paul McMillan**), 2017, A&A, 600, A66. (Citations to date 32)
- 50. "On the metallicity dependence of the [Y/Mg]-age relation for solar-type stars", Feltzing, S., Howes, L., Paul McMillan & Stonkutė, E., 2017, MNRAS, 465, L109. (Citations to date 47)
- 51. "The Gaia mission", Gaia Collaboration, Prusti, T., de Bruijne, J., Brown, A., Vallenari, A., Babusiaux, C., et al. (including **Paul McMillan**), 2016, A&A, 595, A1. (Citations to date 3224)
- 52. "Gaia Data Release 1. Astrometry: one billion positions, two million proper motions and parallaxes", Lindegren, L., Lammers, U., Bastian, U., Hernández, J., Klioner, S., Hobbs, D., et al. (including **Paul McMillan**), 2016, A&A, 595, A4. (Citations to date 596)
- 53. "Gaia Data Release 1. Summary of the astrometric, photometric, and survey properties", Gaia Collaboration, Brown, A., Vallenari, A., Prusti, T., de Bruijne, J., Mignard, F., et al. (including Paul McMillan), 2016, A&A, 595, A2. (Citations to date 1564)
- 54. "Gaia Data Release 1. Pre-processing and source list creation", Fabricius, C., Bastian, U., Portell, J., Castañeda, J., Davidson, M., Hambly, N., et al. (including **Paul McMillan**), 2016, A&A, 595, A3. (Citations to date 78)
- 55. "Chemical separation of disc components using RAVE", Wojno, J., Kordopatis, G., Steinmetz, M., Paul McMillan, Matijevič, G., Binney, J., et al., 2016, MNRAS, 461, 4246. (Citations to date 33)
- 56. "GaiaNIR: Combining optical and Near-Infra-Red (NIR) capabilities with Time-Delay-Integration (TDI) sensors for a future Gaia-like mission", Hobbs, D., Høg, E., Mora, A., Crowley, C., Paul McMillan, Ranalli, P., et al., 2016, arXiv:1609.07325. (Citations to date 33)
- 57. "Identification of globular cluster stars in RAVE data I. Application to stellar parameter calibration", Anguiano, B., Zucker, D., Scholz, R., Grebel, E., Seabroke, G., Kunder, A., et al. (including **Paul McMillan**), 2015, MNRAS, 451, 1229. (Citations to date 19)
- 58. "The Gaia-ESO Survey: a quiescent Milky Way with no significant dark/stellar accreted disc", Ruchti, G., Read, J., Feltzing, S., Serenelli, A., Paul McMillan, Lind, K., et al., 2015, MNRAS, 450, 2874. (Citations to date 47)
- 59. "The rich are different: evidence from the RAVE survey for stellar radial migration", Kordopatis, G., Binney, J., Gilmore, G., Wyse, R., Belokurov, V., Paul McMillan, et al., 2015, MNRAS, 447, 3526. (Citations to date 60)
- 60. "Constraining the Galaxy's dark halo with RAVE stars", Piffl, T., Binney, J., Paul McMillan, Steinmetz, M., Helmi, A., Wyse, R., et al., 2014, MNRAS, 445, 3133. (Citations to date 145)
- 61. "New distances to RAVE stars", Binney, J., Burnett, B., Kordopatis, G., **Paul McMillan**, Sharma, S., Zwitter, T., et al., 2014, MNRAS, 437, 351. (Citations to date 93)

- 62. "In the thick of it: metal-poor disc stars in RAVE", Kordopatis, G., Gilmore, G., Wyse, R., Steinmetz, M., Siebert, A., Bienaymé, O., et al. (including **Paul McMillan**), 2013, MNRAS, 436, 3231. (Citations to date 64)
- 63. "The Radial Velocity Experiment (RAVE): Fourth Data Release", Kordopatis, G., Gilmore, G., Steinmetz, M., Boeche, C., Seabroke, G., Siebert, A., et al. (including **Paul McMillan**), 2013, AJ, 146, 134. (Citations to date 280)
- 64. "Analysing surveys of our Galaxy I. Basic astrometric data", **Paul McMillan** & Binney, J., 2012, MNRAS, 419, 2251. (Citations to date 29)
- 65. "The solar neighbourhood in angle coordinates: the Hyades moving group", **Paul McMillan**, 2011, MNRAS, 418, 1565. (Citations to date 27)
- 66. "The dangers of deprojection of proper motions", **Paul McMillan** & Binney, J., 2009, MNRAS, 400, L103. (Citations to date 11)
- 67. "Initial conditions for disc galaxies", **Paul McMillan** & Dehnen, W., 2007, MNRAS, 378, 541. (Citations to date 88)
- 68. "The haloes of merger remnants", **Paul McMillan**, Athanassoula, E. & Dehnen, W., 2007, MNRAS, 376, 1261. (Citations to date 17)
- 69. "Halo evolution in the presence of a disc bar", **Paul McMillan** & Dehnen, W., 2005, MNRAS, 363, 1205. (Citations to date 36)