Curriculum Vitae: Eric P. Andersson

Personal & Contact Information

Surname: Andersson
Names: Eric Peter
Title: Mr
Date of birth: 26 Sept., 1992
Nationality: Swedish

Work Address:
Lund Observatory,
Dept. of Astronomy & Theoretical Physics,
Box 43, SE-22100 Lund, Sweden
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Research Interest

Galaxy evolution and formation, Star formation and evolution, Stellar feedback and enrichment, Computational hydrodynamics

References

1. Dr. Oscar Agertz
   Lund Observatory, Dept. of Astronomy & Theoretical Physics, Lund University, Box 43 , SE-22100 Lund, Sweden. *E-mail:* oscar.agertz@astro.lu.se
2. Dr. Florent Renaud
   Lund Observatory, Dept. of Astronomy & Theoretical Physics, Lund University, Box 43 , SE-22100 Lund, Sweden. *E-mail:* florent@astro.lu.se
3. Prof. Melvyn B. Davies
   Lund Observatory, Dept. of Astronomy & Theoretical Physics, Lund University, Box 43 , SE-22100 Lund, Sweden. *E-mail:* mbd@astro.lu.se
4. Dr. Chao-Chin Yang
   University of Nevada, Las Vegas, Department of Physics and Astronomy, 4505 S. Maryland Pkwy, Box 454002, Las Vegas, NV 89154-4002, U.S.A
   E-mail: ccyang@unlv.edu

Academic History

(**2018 – present**) **Doctoral student of astronomy**
Dept. of Astronomy and Theoretical Physics, Lund University, Sweden
- Project: *Researching how different physical processes affect galaxy formation and evolution in different environments.*
- Advisors: Oscar Agertz, Florent Renaud, Melvyn B. Davies
- Area of Study: Formation and evolution of galaxies

(**2016 – 2018**) **Master student in Astrophysics**
Dept. of Astronomy and Theoretical Physics, Lund University, Sweden
- Thesis Topic: *Estimating the probability of tidally stripping globular clusters from dwarf satellites in the M31 potential.*
- Advisors: Prof. Melvyn B. Davies
- Area of Study: Galactic dynamics

(**2013 – 2016**) **Bachelor student in Theoretical physics**
Dept. of Astronomy and Theoretical Physics, Lund University, Sweden
- Thesis Topic: *Development of an algorithm to reduce the computational workload in multi-processor simulations of protoplanetary discs.*
- Advisors: Dr. Chao-Chin Yang
- Area of Study: Computational astrophysics, Planet formation

Refereed Publications

Andersson E.-P., Agertz O., Renaud F., 2020, arXiv:2003.12297

Andersson E. P., Davies M. B., 2019, MNRAS, 485, 4134

Academic projects

(**2018**) **Summer project in Astrophysics**
Dept. of Astronomy and Theoretical Physics, Lund University, Sweden
- Project: *Writing and submitting article: Tidal stripping as a mechanism for placing globular clusters on wide orbits: the case of MGC1 in M31*
- Advisors: Prof. Melvyn B. Davies
- Area of Study: Globular cluster dynamics in galaxies.

(**2017**) **Summer project in Astrophysics**
Dept. of Astronomy and Theoretical Physics, Lund University, Sweden
- Project: *Implementation and testing of new adaptive-particles algorithm for the PENCIL code.*
- Advisors: Dr. Chao-Chin Yang
- Area of Study: Computational astrophysics, Planet formation

Contributed talks and posters

(**3 October, 2019) RAMSES user meeting (Copenhagen)**
Talk titled: *Simulating individual star in RAMSES*

(5 August, 2019) Santa Cruz Galaxy Workshop (US)
Talk titled: *Understanding galaxy formation star by star* **[Slides]**

(13 August, 2019) COMPUTE workshop (Sweden)
Poster titled: *Understanding galaxy formation star by star*

(28 May, 2019) The New Milky Way meeting, Örenäs castle (Sweden)
Talk titled: *Simulating dwarf galaxies with individual stars*

(19 November, 2018) The Survival of Dense Star Clusters in the Milky Way System (MPIA, Heidelberg)
Talk titled: *Tidal stripping as a mechanism for placing globular clusters on wide orbits*

(19 July, 2018) Tracing star and cluster formation across cosmic times (Sexten, Italy)
Talk titled: *Tidal stripping as a mechanism for placing globular clusters on wide orbits*

Teaching

Lund University

2019	Assisting supervision of MSc student Mateo Prgomet
2019	Guiding problem based learning (PBL) in High Energy Astrophysics course (MSc level)
2018	Developed and supervised computer exercise in Galaxies and Cosmology course (BSc level)
2018	Guiding PBL in Stellar Structure and Evolution course (MSc level)
2018/2019	Supervising observational exercise in Introduction to Astrophysics cource (BSc level)
2018	Supervising remote radio-telescope observations in Galaxies and Cosmology course (BSc level)

Grants/ Funding

(**2018) Kungliga Fysiografiska Sällskapet i Lund, 50K SEK**

Leadership Experince Outreach

(2019) **Galaxy formation meetings (GalForm)**, Lund University.
Chair and main organiser.

(2018 – 2019) **Board of undergraduate education**, Lund University.

(2018 – 2019) **Telescope responsible**, Lund University.

(2018) **Journal Club**, Lund University. Chair person.

(2017 – 2018) **ALVA, Local public outreach organisation**, Lund University.
President (2017-2018) & Vice president (2016-2017).

(2017) **Lund planetarium**, Lund Observatory.
Employee trained to host planetarium shows.

(2017) **LOC for the 4-MOST DFDR consortium**, Lund University.
Member of LOC for consortium 29-30 March.

(2017) **LOC for the Knut & Alice Wallenberg foundation 2017 symposium**
Lund University.

(2016) **Mentor committee of the Lund University science union**
Lund University. Position: Member.

(2013, 2014, 2015, 2017, 2018 & 2019) **Outreach event Kulturnatten**, Lund University.

Paul McMillan

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+46 46 22 27312 ⋄ paul@astro.lu.se

EDUCATION

University of Leicester, Department of Physics and Astronomy 2003-2006
PhD in Theoretical Astrophysics, awarded 2007
Thesis title: *Numerical simulations of galaxy interaction*
Supervisor: Prof Walter Dehnen
Included three-month Marie Curie fellowship at Observatoire de Marseille, Université de Provence

University of Cambridge 1999-2003
BA and MSci in Natural Sciences (Physics)
First Class

RESEARCH EMPLOYMENT

Lund Observatory, Lund University 2014 - Present
Senior research fellow

· Qualified as docent (associate professor, roughly equivalent to German habilitation), 2019.
· Continuing position, funded by Swedish Research Council grant (of which I am PI).

University of Oxford 2006 - 2014
Post-Doctoral Researcher

· Position at the Rudolf Peierls Centre for Theoretical Physics, supported by STFC and ERC grants.

TEACHING EXPERIENCE

Lund University

· 'Course responsible' and lecturer, Statistical Methods in Astrophysics, Masters level course, 2017–.
· 'Course responsible' and discussion group leader, Galactic Dynamics, PhD course, 2016–.
· Supervisor, PhD students: Daniel Mikkola 2017–, Eero Vaher 2019– (secondary supervisor).
· Supervisor, Masters thesis (two-year): Edvin Zigmanovic (defended 2016); Daniel Mikkola (def. 2017); Hyerin Jang (ongoing).
· Supervisor, Bachelors thesis (one-semester): Timmy Ejdetjärn; John Wimarsson; Calin Jilavu.
· PhD thesis examination committees: Andrea Chiappo, Emanuel Gafton (Stockholm Univ., 2019).
· Examiner, Master & Bachelor theses, Lund University: 2016–.

University of Oxford

· Non-Stipendiary Lecturer, Merton College. Cosmology, General Relativity and Fluid Dynamics, Bachelors level. Responsible for in-college teaching and examination in these subjects, 2006–14.
· Expert assessor for MPhys projects, 2009.

Other

· 2013: Invited lecturer in dynamical modelling, "International Gaia School", UNAM, Mexico City.
· 2003–2005: Undergraduate seminar tutor, University of Leicester.

Teaching qualifications

- "Readership course", Lund University, three week full time course, 2017. Preparation for appointment as docent (associate professor), including training in research supervision.
- "Learning and teaching in higher education - theory and practice", Lund University, three week full time course, 2018.

GRANTS AND AWARDS

Grants as PI

(N.B. 12 SEK ≈ £1)

- Vetenskapsrådet (Swedish Research Council) project grant 'Determining the gravitational field of the Milky Way with Gaia data', 3 440 000 SEK, October 2017.
- Walter Gyllenberg foundation grant from the Royal Physiographic Society of Lund, for computing resources and academic visitors, 260 000 SEK, December 2014.
- Swedish National Infrastructure for Computing grants for high-performance computing resources, total 150 000 hr, 2017-2019.

Grants as Co-I

- Swedish National Space Agency grant, 'Astrophysical space research using Gaia', 5 593 000 SEK, December 2017.

Awards

- M. Sparke Scholarship and G. Crewdson Prize, Girton College, 2003.
- B. Bodichon Scholarship and J. C. Gamble Prize, Girton College, 2001.
- J. B. Buckley Scholarship and L. Adib Prize, Girton College, 2000.

RESEARCH ACCOMPLISHMENTS

Produced widely used models of the Milky Way gravitational potential from a Bayesian analysis of observation and theoretical data (McMillan 2011, 2017 – over 600 citations).

Lead of Magellanic Cloud data analysis for Gaia science demonstration paper (Gaia collaboration et al., 2018). Member of the Gaia astrometric solution team. RAVE survey 'builder', reflecting my work on the survey's infrastructure. Member of the 4MOST and PLATO survey teams.

Demonstrated how to constrain the structure and dynamics of the Milky Way from surveys of stars in the Galactic disc (McMillan & Binney 2013). This work applied dynamical modelling techniques that I pioneered (McMillan & Binney 2008), and has since been applied to major surveys (e.g., Piffl, Binney, McMillan et al 2014).

50 refereed publications in major astrophysical journals, with a total of 10 000 citations. Of these, I am first or only author of 16 papers, which have over 1200 citations.

OTHER EXPERIENCE

Conference SOC chair: "Big Questions Dark Matter Workshop," Lund University, April 2017

Conference SOC member: "The science of Gaia and future astrometry challenges", Lund University, August 2017; "For All" meetings, Lund Observatory, February 2016/17/18.

Panel member: ESO Observing Programmes Committee (2020).

Invited conference speaker (selected): IAU general assembly, Honolulu, 2015 (invited review); Danish National Astronomy meeting, Faaborg, 2018 (keynote speaker); Blaauw workshop, Groningen (2018); "Thin, Thick Dark discs", Ascona (2017); Nordic Planetarium Association biennial meeting, Lund (2017); "The Chemical Evolution of Galaxies", MIAPP (2016); "Stellar streams in the Local Universe", Ringberg Castle (2015); 7th Korean Astrophysics Workshop on Dynamics of Disk Galaxies (2013); "News from the Dark" workshop, Montpellier (2013).

Invited speaker (selected): University of Cambridge, UCL (MSSL), Lund University, University of Amsterdam, Durham University.

Outreach: Regular public talks and talks to school groups. Helped organise exhibit at the 2014 Royal Society Summer Science Exhibition.

Organiser and chair: Fortnightly department meetings on astronomy topics, Lund Observatory.

Referee: MNRAS, ApJ, A&A, Phys. Rev. Lett., Phys. Rev D., AJ, Swiss National Supercomputing Centre, Agence Nationale de la Recherche (ANR).

Publication List - Paul McMillan

Lund Observatory ⋄ paul@astro.lu.se

12212 total citations ⋄ 1338 citations as first author

Key Publications

1. "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., et al., 2020, AJ, 160, 83. *(Citations to date 5)*
2. "Distances and parallax bias in Gaia DR2", Schönrich, R., **Paul McMillan** & Eyer, L., 2019, MNRAS, 487, 3568. *(Citations to date 69)*
3. "Gaia Data Release 2. Kinematics of globular clusters and dwarf galaxies around the Milky Way", Gaia Collaboration, Helmi, A., van Leeuwen, F., **Paul McMillan**, et al., 2018, A&A, 616, A12. *(Citations to date 277)*
4. "Improved distances and ages for stars common to TGAS and RAVE", **Paul McMillan**, Kordopatis, G., Kunder, A., Binney, J., et al., 2018, MNRAS, 477, 5279. *(Citations to date 37)*
5. "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 53)*
6. "The mass distribution and gravitational potential of the Milky Way", **Paul McMillan**, 2017, MNRAS, 465, 76. *(Citations to date 255)*
7. "The Radial Velocity Experiment (RAVE): Fifth Data Release", Kunder, A., Kordopatis, G., Steinmetz, M., Zwitter, T., et al. (including **Paul McMillan**), 2017, AJ, 153, 75. *(Citations to date 283)*
8. "Torus mapper: a code for dynamical models of galaxies", Binney, J. & **Paul McMillan**, 2016, MNRAS, 456, 1982. *(Citations to date 28)*
9. "Constraining the Galaxy's dark halo with RAVE stars", Piffl, T., Binney, J., **Paul McMillan**, Steinmetz, M., et al., 2014, MNRAS, 445, 3133. *(Citations to date 120)*
10. "Analysing surveys of our Galaxy - II. Determining the potential", **Paul McMillan** & Binney, J., 2013, MNRAS, 433, 1411. *(Citations to date 27)*
11. "Extending the Hyades", **Paul McMillan**, 2013, MNRAS, 430, 3276. *(Citations to date 21)*
12. "Mass models of the Milky Way", **Paul McMillan**, 2011, MNRAS, 414, 2446. *(Citations to date 513)*
13. "Models of our Galaxy - II", Binney, J. & **Paul McMillan**, 2011, MNRAS, 413, 1889. *(Citations to date 90)*
14. "The uncertainty in Galactic parameters", **Paul McMillan** & Binney, J., 2010, MNRAS, 402, 934. *(Citations to date 214)*
15. "Disassembling the Galaxy with angle-action coordinates", **Paul McMillan** & Binney, J., 2008, MNRAS, 390, 429. *(Citations to date 58)*
16. "Initial conditions for disc galaxies", **Paul McMillan** & Dehnen, W., 2007, MNRAS, 378, 541. *(Citations to date 84)*
17. "Halo evolution in the presence of a disc bar", **Paul McMillan** & Dehnen, W., 2005, MNRAS, 363, 1205. *(Citations to date 36)*

Other Publications

18. "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., et al. (including **Paul McMillan**), 2020, AJ, 160, 82. *(Citations to date 6)*

19. "Radial migration and vertical action in N-body simulations", Mikkola, D., **Paul McMillan** & Hobbs, D., 2020, MNRAS, 495, 3295. *(Citations to date 1)*

20. "The RAdial Velocity Experiment: Parameterization of RAVE spectra based on Convolutional Neural Network", Guiglion, G., Matijevic, G., Queiroz, A., Valentini, M., et al. (including **Paul McMillan**), 2020, arXiv:2004.12666. *(Citations to date 1)*

21. "Kinematics with Gaia DR2: the force of a dwarf", Carrillo, I., Minchev, I., Steinmetz, M., Monari, G., et al. (including **Paul McMillan**), 2019, MNRAS, 490, 797. *(Citations to date 17)*

22. "Voyage 2050 White Paper: All-Sky Visible and Near Infrared Space Astrometry", Hobbs, D., Brown, A., Høg, E., Jordi, C., et al. (including **Paul McMillan**), 2019, arXiv:1907.12535. *(Citations to date 3)*

23. "Radial abundance gradients in the outer Galactic disk as traced by main-sequence OB stars", Bragança, G., Daflon, S., Lanz, T., Cunha, K., et al. (including **Paul McMillan**), 2019, A&A, 625, A120. *(Citations to date 3)*

24. "4MOST Consortium Survey 4: Milky Way Disc and Bulge High-Resolution Survey (4MIDABLE-HR)", Bensby, T., Bergemann, M., Rybizki, J., Lemasle, B., et al. (including **Paul McMillan**), 2019, Msngr, 175, 35. *(Citations to date 9)*

25. "4MOST: Project overview and information for the First Call for Proposals", de Jong, R., Agertz, O., Berbel, A., Aird, J., et al. (including **Paul McMillan**), 2019, Msngr, 175, 3. *(Citations to date 59)*

26. "4MOST Consortium Survey 3: Milky Way Disc and Bulge Low-Resolution Survey (4MIDABLE-LR)", Chiappini, C., Minchev, I., Starkenburg, E., Anders, F., et al. (including **Paul McMillan**), 2019, Msngr, 175, 30. *(Citations to date 11)*

27. "Gaia Data Release 2. Variable stars in the colour-absolute magnitude diagram", Gaia Collaboration, Eyer, L., Rimoldini, L., Audard, M., et al. (including **Paul McMillan**), 2019, A&A, 623, A110. *(Citations to date 54)*

28. "Spiral arm crossings inferred from ridges in Gaia stellar velocity distributions", Quillen, A., Carrillo, I., Anders, F., **Paul McMillan**, et al., 2018, MNRAS, 480, 3132. *(Citations to date 29)*

29. "Gaia Data Release 2. The celestial reference frame (Gaia-CRF2)", Gaia Collaboration, Mignard, F., Klioner, S., Lindegren, L., et al. (including **Paul McMillan**), 2018, A&A, 616, A14. *(Citations to date 78)*

30. "Gaia Data Release 2. Observations of solar system objects", Gaia Collaboration, Spoto, F., Tanga, P., Mignard, F., et al. (including **Paul McMillan**), 2018, A&A, 616, A13. *(Citations to date 33)*

31. "Gaia Data Release 2. Observational Hertzsprung-Russell diagrams", Gaia Collaboration, Babusiaux, C., van Leeuwen, F., Barstow, M., et al. (including **Paul McMillan**), 2018, A&A, 616, A10. *(Citations to date 304)*

32. "Gaia Data Release 2. The astrometric solution", Lindegren, L., Hernández, J., Bombrun, A., Klioner, S., et al. (including **Paul McMillan**), 2018, A&A, 616, A2. *(Citations to date 929)*

33. "Gaia Data Release 2. Mapping the Milky Way disc kinematics", Gaia Collaboration, Katz, D., Antoja, T., Romero-Gómez, M., et al. (including **Paul McMillan**), 2018, A&A, 616, A11. *(Citations to date 165)*

34. "Gaia Data Release 2. Summary of the contents and survey properties", Gaia Collaboration, Brown, A., Vallenari, A., Prusti, T., et al. (including **Paul McMillan**), 2018, A&A, 616, A1. *(Citations to date 3322)*

35. "Correlations between age, kinematics, and chemistry as seen by the RAVE survey", Wojno, J., Kordopatis, G., Steinmetz, M., **Paul McMillan**, et al., 2018, MNRAS, 477, 5612. *(Citations to date 8)*

36. "Simple Distance Estimates for Gaia DR2 Stars with Radial Velocities", **Paul McMillan**, 2018, RNAAS, 2, 51. *(Citations to date 15)*

37. "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., et al. (including **Paul McMillan**), 2018, RNAAS, 2, 32. *(Citations to date 13)*

38. "Gaia DR2 Confirms that Candidate Thorne-Żytkow Object HV 2112 is in the Small Magellanic Cloud", **Paul McMillan** & Church, R., 2018, RNAAS, 2, 18.

39. "Is the Milky Way still breathing? RAVE-Gaia streaming motions", Carrillo, I., Minchev, I., Kordopatis, G., Steinmetz, M., et al. (including **Paul McMillan**), 2018, MNRAS, 475, 2679. *(Citations to date 32)*

40. "Climbing the cosmic ladder with stellar twins in RAVE with Gaia", Jofré, P., Traven, G., Hawkins, K., Gilmore, G., et al. (including **Paul McMillan**), 2017, MNRAS, 472, 2517. *(Citations to date 7)*

41. "Gaia Data Release 1. Testing parallaxes with local Cepheids and RR Lyrae stars", Gaia Collaboration, Clementini, G., Eyer, L., Ripepi, V., et al. (including **Paul McMillan**), 2017, A&A, 605, A79. *(Citations to date 62)*

42. "The selection function of the RAVE survey", Wojno, J., Kordopatis, G., Piffl, T., Binney, J., et al. (including **Paul McMillan**), 2017, MNRAS, 468, 3368. *(Citations to date 32)*

43. "Gaia Data Release 1. Open cluster astrometry: performance, limitations, and future prospects", Gaia Collaboration, van Leeuwen, F., Vallenari, A., Jordi, C., et al. (including **Paul McMillan**), 2017, A&A, 601, A19. *(Citations to date 65)*

44. "RAVE stars in K2. I. Improving RAVE red giants spectroscopy using asteroseismology from K2 Campaign 1", Valentini, M., Chiappini, C., Davies, G., Elsworth, Y., et al. (including **Paul McMillan**), 2017, A&A, 600, A66. *(Citations to date 28)*

45. "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 32)*

46. "The Gaia mission", Gaia Collaboration, Prusti, T., de Bruijne, J., Brown, A., et al. (including **Paul McMillan**), 2016, A&A, 595, A1. *(Citations to date 2139)*

47. "Gaia Data Release 1. Astrometry: one billion positions, two million proper motions and parallaxes", Lindegren, L., Lammers, U., Bastian, U., Hernández, J., et al. (including **Paul McMillan**), 2016, A&A, 595, A4. *(Citations to date 550)*

48. "Gaia Data Release 1. Summary of the astrometric, photometric, and survey properties", Gaia Collaboration, Brown, A., Vallenari, A., Prusti, T., et al. (including **Paul McMillan**), 2016, A&A, 595, A2. *(Citations to date 1337)*

49. "Gaia Data Release 1. Pre-processing and source list creation", Fabricius, C., Bastian, U., Portell, J., Castañeda, J., et al. (including **Paul McMillan**), 2016, A&A, 595, A3. *(Citations to date 61)*

50. "Chemical separation of disc components using RAVE", Wojno, J., Kordopatis, G., Steinmetz, M., **Paul McMillan**, et al., 2016, MNRAS, 461, 4246. *(Citations to date 27)*

51. "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., et al. (including **Paul McMillan**), 2016, arXiv:1609.07325. *(Citations to date 25)*

52. "Identification of globular cluster stars in RAVE data - I. Application to stellar parameter calibration", Anguiano, B., Zucker, D., Scholz, R., Grebel, E., et al. (including **Paul McMillan**), 2015, MNRAS, 451, 1229. *(Citations to date 17)*

53. "The Gaia-ESO Survey: a quiescent Milky Way with no significant dark/stellar accreted disc", Ruchti, G., Read, J., Feltzing, S., Serenelli, A., et al. (including **Paul McMillan**), 2015, MNRAS, 450, 2874. *(Citations to date 40)*

54. "The rich are different: evidence from the RAVE survey for stellar radial migration", Kordopatis, G., Binney, J., Gilmore, G., Wyse, R., et al. (including **Paul McMillan**), 2015, MNRAS, 447, 3526. *(Citations to date 54)*

55. "New distances to RAVE stars", Binney, J., Burnett, B., Kordopatis, G., **Paul McMillan**, et al., 2014, MNRAS, 437, 351. *(Citations to date 91)*

56. "In the thick of it: metal-poor disc stars in RAVE", Kordopatis, G., Gilmore, G., Wyse, R., Steinmetz, M., et al. (including **Paul McMillan**), 2013, MNRAS, 436, 3231. *(Citations to date 51)*

57. "The Radial Velocity Experiment (RAVE): Fourth Data Release", Kordopatis, G., Gilmore, G., Steinmetz, M., Boeche, C., et al. (including **Paul McMillan**), 2013, AJ, 146, 134. *(Citations to date 254)*

58. "Analysing surveys of our Galaxy - I. Basic astrometric data", **Paul McMillan** & Binney, J., 2012, MNRAS, 419, 2251. *(Citations to date 27)*

59. "The solar neighbourhood in angle coordinates: the Hyades moving group", **Paul McMillan**, 2011, MNRAS, 418, 1565. *(Citations to date 25)*

60. "The dangers of deprojection of proper motions", **Paul McMillan** & Binney, J., 2009, MNRAS, 400, L103. *(Citations to date 11)*

61. "The haloes of merger remnants", **Paul McMillan**, Athanassoula, E. & Dehnen, W., 2007, MNRAS, 376, 1261. *(Citations to date 15)*