

Publication list

Andreas Koch

1 Refereed Articles

33. Crnojevic, D., Grebel, E.K., & **Koch, A.** 2009, A&A, submitted:
'A close look at the Centaurus A group of galaxies: I. early type dwarfs'
32. Lianou, S., Grebel, E.K., & **Koch, A.** 2009, A&A, submitted:
'Dwarf galaxies in the M81 group – metallicity distributions and population gradients'
31. Ural, U., Wilkinson, M.I., **Koch, A.**, et 7 alii 2009, MNRAS, submitted (astro-ph/0808.0141):
'Kinematic sub-populations in dwarf spheroidals'
30. Adén, D., Wilkinson, M.I., Read, J.I., Feltzing, S., **Koch, A.**, Gilmore, G.F., Grebel, E.K., & Lundström, I. 2009, ApJL, in press (astro-ph/0910.1348):
'A new low mass for the dwarf spheroidal galaxy in Hercules: the end of a common mass scale for the dwarfs?'
29. Adén, D., Feltzing, S., **Koch, A.**, et 8 alii 2009, A&A, in press (astro-ph/0908.3489):
'A photometric and spectroscopic study of the new dwarf spheroidal galaxy in Hercules — Metallicity, velocities and a clean list of RGB members'
28. **Koch, A.**, Côté, P., & McWilliam, A. 2009, A&A, 506, 729:
'All quiet in the outer halo: chemical abundances in the globular cluster Pal 3'
27. Glatt, K., Grebel, E.K., Gallagher, J.S., Nota, A., Sabbi, E., Sirianni, M., Clementini, G., Da Costa, G., Tosi, M., Harbeck, D., **Koch, A.**, & Kayser, A. 2009, AJ, 138, 1403:
'Structural parameters of seven SMC intermediate-age and old star clusters'
26. Howard, C.D., Rich, R.M., Clarkson, W., Mallery, R., Kormendy, J., De Propris, R., Robin, A.C., Fux, R., Reitzel, D.B., Zhao, H.S., Kuijken, K., & **Koch, A.** 2009, ApJL, 702, 153:
'Kinematics at the edge of the Galactic bulge: Evidence of cylindrical rotation'
25. Donato, F., Gentile, G., Salucci, P., Frigerio Martins, C., Wilkinson, M.I., Gilmore, G., Grebel, E.K., **Koch, A.**, & Wyse, R.F.G 2009, MNRAS, 397, 1169:
'A constant dark matter halo surface density in galaxies'
24. **Koch, A.** 2009, AN, 330, 675:
'Complexity in small-scale dwarf spheroidals'
23. Quinn, D.P., Wilkinson, M.I., Irwin, M.J., Marshall, J., **Koch, A.**, & Belokurov, V. 2009, MNRAS, 396, L11:
'On the reported death of the Macho era'
22. **Koch, A.**, Wilkinson, M.I., Kleyna, J.T., et 6 alii 2009, ApJ, 690, 453:
'A spectroscopic confirmation of the Boötes II dwarf spheroidal'

21. **Koch, A.**, Rich, R.M., Reitzel, D.B., Martin, N., Ibata, R., Chapman, S., Majewski, S.R., Mori, M., Loh, Y.-S., Ostheimer, J., & Tanaka, M. 2008, ApJ, 689, 958:
'Kinematic and chemical constraints on the formation of M31's inner spheroid'
20. Howard, C.D., Rich, R.M., Reitzel, D.B., **Koch, A.**, Zhao, H.S., & De Propris, R. 2008, ApJ, 688, 1060:
'The Bulge Radial Velocity Assay (BRAVA): I. Sample selection and a rotation curve'
19. **Koch, A.**, McWilliam, A., Grebel, E.K., Zucker, D.B., & Belokurov, V. 2008, ApJL, 688, L13:
'The highly unusual chemical composition of the Hercules dwarf spheroidal galaxy'
18. Chapman, S.C., Ibata, R., Irwin, M., **Koch, A.**, et 11 alii 2008, MNRAS, 390, 1437:
'The kinematic footprints of five stellar streams in Andromeda's halo'
17. Brown, T.M., Beaton, R., Chiba, M., Ferguson, H.C., Gilbert, K.M., Guhathakurta, P., Iye, M., Kalirai, J., **Koch, A.**, et 8 alii 2008, ApJL, 685, 121:
'The extended star formation history of the Andromeda spheroid at thirty five kiloparsecs on the minor axis'
16. Glatt, K., Grebel, E.K., Sabbi, E., Gallagher, J.S., Nota, A., Sirianni, M., Clementini, G., Tosi, M., Harbeck, D., **Koch, A.**, Kayser, A., & Da Costa, G.S. 2008, AJ, 136, 1703:
'Age determinations of six intermediate-age SMC star clusters with HST/ACS'
15. **Koch, A.**, Grebel, E.K., Gilmore, G.F., Wyse, R.F.G., Kleyna, J.T., Harbeck, D.R., Wilkinson, M.I., & Evans, N.W. 2008, AJ, 135, 1580:
'Complexity on small scales III: Iron and α -element abundances in the Carina dwarf spheroidal galaxy'
14. **Koch, A.**, & McWilliam, A., 2008, AJ, 135, 1551:
'A new abundance scale for the globular cluster 47 Tuc'
13. Glatt, K., Gallagher, J.S., Grebel, E.K., Nota, A., Sabbi, E., Sirianni, M., Clementini, G., Tosi, M., Harbeck, D., **Koch, A.**, & Crachraft, M. 2008, AJ, 135, 1106:
'An accurate age determination for the SMC star cluster NGC121 with HST/ACS'
12. Coleman, M.G., Jordi, K., Rix, H.-W., Grebel, E.K., & **Koch, A.** 2007, AJ, 134, 1938:
'A wide-field view of Leo II – A structural analysis using the SDSS'
11. **Koch, A.**, Kleyna, J.T., Wilkinson, M.I., Grebel, E.K., Gilmore, G.F., Evans, N.W., Wyse, R.F.G., & Harbeck, D.R. 2007, AJ, 134, 566:
'Stellar kinematics in the Leo II dwarf spheroidal galaxy – Another brick in the wall'
10. Gilmore, G., Wilkinson, M.I., Wyse, R.F.G., Kleyna, J.T., **Koch, A.**, Evans, N.W., & Grebel, E.K. 2007, ApJ, 663, 948:
'The observed properties of dark matter on small spatial scales'
9. **Koch, A.**, Wilkinson, M.I., Kleyna, J.T., Gilmore, G.F., Grebel, E.K., Mackey, D., Evans, N.W., & Wyse, R.F.G. 2007, ApJ, 657, 241:
'Stellar kinematics and metallicities in the Leo I dwarf spheroidal galaxy – wide field implications for galactic evolution'

8. **Koch, A.**, Grebel, E.K., Kleyana, J.T., Wilkinson, M.I., Harbeck, D.R., Gilmore, G.F., Wyse, R.F.G., & Evans, N.W. 2007, AJ, 133, 270:
‘Complexity on small scales II: Metallicities and ages in the Leo II dwarf spheroidal galaxy’
7. **Koch, A.** & Grebel, E.K. 2006, AJ, 131, 1405:
‘The anisotropic distribution of M31 satellite galaxies: A polar great plane of early-type companions’
6. Wyse, R.F.G., Gilmore, G.F., Norris, J.E., Wilkinson, M.I., Kleyana, J.T., **Koch, A.**, Evans, N.W., & Grebel, E.K. 2006, ApJ, 639, L13:
‘Further evidence for a merger origin for the Thick disk: Galactic stars along line-of-sight to dwarf spheroidal galaxies’
5. **Koch, A.**, Grebel, E.K., Wyse, R.F.G., Kleyana, J.T., Wilkinson, M.I., Harbeck, D., Gilmore, G.F., & Evans, N.W. 2006, AJ, 131, 895:
‘Complexity on small scales: The metallicity distribution of the Carina dwarf spheroidal galaxy’
4. Harbeck, D., Gallagher, J.S., Grebel, E.K., **Koch, A.**, & Zucker, D.B. 2005, ApJ, 623, 159:
‘Andromeda IX: Properties of the smallest M31 dwarf satellite galaxy’
3. **Koch, A.**, Grebel, E.K., Odenkirchen, M., Martínez-Delgado, D., & Caldwell, J.A.R. 2004, AJ, 128, 2274:
‘Mass segregation in the globular cluster Palomar 5 and its tidal tails’
2. **Koch, A.**, Odenkirchen, M., Grebel, E.K., & Caldwell, J.A.R. 2004, AN, 325, 299:
‘A calibration map for Wide Field Imager photometry’
1. **Koch, A.**, & Edvardsson, B. 2001, A&A, 381, 500:
‘Europium abundances in F and G disk dwarfs’

2 Non-refereed Articles & Conference Proceedings

42. Crnojevic, D., Grebel, E.K., & **Koch, A.** 2009, AN, 330, 1002
‘Evolution of dwarf galaxies in the Centaurus A group’
41. **Koch, A.**, Adén, D., Grebel, E.K., & Feltzing, S. 2009, in ‘Chemical abundances in the Universe: Connecting first stars to planets’, K. Cunha, M. Spite, B. Barbuy (eds.), IAUS 265:
‘Complexity in small-scale dwarf spheroidal galaxies’
40. Lianou, S., Grebel, E.K., & **Koch, A.** 2009, in ‘Stellar populations: Planning for the next decade’, G.R. Bruzual, S. Charlot (eds.), IAUS 262:
‘Early-type dwarf galaxies in the M81 group’
39. Quinn, D.P., Wilkinson, M.I., Irwin, M.J., Marshall, J., **Koch, A.**, & Belokurov, V. 2009, in ‘Binaries – keys to comprehension of the Universe’, NN (ed.), ASP Conf. Ser., in press:
‘Dark Matter Constraints from Wide Halo Binary Stars’

38. **Koch, A.** 2009, *Rev. Mod. Ast.*, 21, 9 (astro-ph/0905.0557):
‘Complexity in small-scale dwarf spheroidals’ (Ludwig Biermann award lecture)
37. Lianou, S., Grebel, E.K., & **Koch, A.** 2009, *AN*, 88, in press
‘Dwarf spheroidal galaxies in the M81 group of galaxies’
36. Kayser, A., Grebel, E.K., Cole, A., Harbeck, D.R., **Koch, A.**, Gallagher, J.S., & Da Costa, G.S. 2009, in FONDAP-ESO conference, ‘Globular Clusters – Guides to Galaxies’, T. Richtler, S. Larsen (eds.), ESO/Springer Verlag, 157:
‘The Age-Metallicity Relation of the SMC’
35. Glatt, K., Grebel, E.K., & **Koch, A.** 2009, in FONDAP-ESO conference, ‘Globular Clusters – Guides to Galaxies’, T. Richtler, S. Larsen (eds.), ESO/Springer Verlag, 119:
‘Star clusters in the Small Magellanic Cloud’
34. Gilmore, G., Zucker, D., Wilkinson, M., Wyse, R.F.G., Belokurov, V., Kleyana, J., **Koch, A.**, Evans, N.W., & Grebel, E.K. 2008, in ‘Panoramic views of galaxy formation and evolution’, T. Kodama, T. Yamada, and K. Aoki (eds.), 399, 453:
‘What is a galaxy? How cold is Cold Dark Matter? Recent progress in near field cosmology’
33. Reitzel, D.B., **Koch, A.**, Rich, R.M., et 7 alii 2008, *BAAS*, 39, 897:
‘Kinematic and chemical constraints on the formation of M31’s inner halo structures’
32. **Koch, A.**, McWilliam, A., & Wilkinson, M.I. 2008, *BAAS*, 39, 896:
‘The first chemical abundance study of the Hercules dwarf spheroidal galaxy’
31. Glatt, K., Gallagher, J.S., Grebel, E.K., Nota, A., Sabbi, E., Sirianni, M., Clementini, G., Tosi, M., Harbeck, D.R., & **Koch, A.**, 2008, *BAAS*, 39, 836:
‘Ages, distances, and fiducials for seven SMC star clusters with HST/ACS’
30. **Koch, A.**, Rich, R.M., Reitzel, D.B., et 8 alii 2007, *AN*, 328, 653:
‘Kinematic and chemical constraints on the formation of M31’s inner halo structures’
29. **Koch, A.**, Grebel, E.K., McWilliam, A., Wyse, R.F.G., Gilmore, G.F. et 7 alii 2007, *AN*, 328, 652:
‘Chemical abundances in the Carina dwarf spheroidal galaxy’
28. **Koch, A.**, Rich, R.M., Reitzel, D.B., et 7 alii 2007, in ‘The Milky Way halo – Stars and gas’, K.S. de Boer, P.Kroupa (eds.), <http://www.astro.uni-bonn.de/~mwhalo/proceedings/mwh-p44-koch.pdf>:
‘Kinematic and chemical constraints on the formation of M31’s inner halo structures’
27. Howard, C.D., Reitzel, D.B., Rich, R.M., **Koch, A.**, & Zhao, H.S. 2007, in ‘The Milky Way halo – Stars and gas’, K.S. de Boer, P.Kroupa (eds.), <http://www.astro.uni-bonn.de/~mwhalo/proceedings/mwh-p43-koch.pdf>:
‘The Bulge Radial Velocity Assay [BRAVA]: Techniques and Results’
26. **Koch, A.**, Wilkinson, M.I., Kleyana, J.T., Gilmore, G.F., Grebel, E.K., Evans, N.W., & Wyse, R.F.G. 2007, in ‘The Milky Way halo – Stars and gas’, K.S. de Boer, P.Kroupa (eds.), <http://www.astro.uni-bonn.de/~mwhalo/proceedings/mwh-p30-koch.pdf>:
‘Stellar kinematics in the remote Leo I and II dwarf spheroidals’

25. **Koch, A.**, McWilliam, A., Grebel, E.K., Wyse, R.F.G., Gilmore, G.F. et 7 alii 2007, in ‘The Milky Way halo – Stars and gas’, K.S. de Boer, P.Kroupa (eds.), <http://www.astro.uni-bonn.de/~mwhalo/proceedings/mwh-p29-koch.pdf>:
‘*Chemical abundances in the Carina dwarf spheroidal galaxy*’
24. Kayser, A. Grebel, E.K., Harbeck, D.R., Cole, A.A., **Koch, A.**, Glatt, K., Gallagher, J.S., & Da Costa, G.S 2007, in ‘Stellar Populations as building blocks of galaxies’, R.F.Peletier, A.Vazdekis (eds.), IAUS 241, 351:
‘*A spectroscopy-based Age-Metallicity Relation of the SMC*’
23. Reitzel, D.B., Howard, C.D., Rich, R.M., **Koch, A.**, & Zhao, H.S. 2007, BAAS, 38, 1149:
‘*The line of sight velocity distribution of the Galactic bulge*’
22. Rich, R.M., Brown, T.M., Reitzel, D.B., Ferguson, H., **Koch, A.**, et 11 alii 2007, BAAS, 1155:
‘*Keck/Deimos Spectroscopy of Distant M31 fields with Deep HST Imaging*’
21. Gilmore, G., Wilkinson, M., Kleyna, J., **Koch, A.**, Evans, W., Wyse, R.F.G., Grebel, E. 2007, Nuclear Physics B Proceedings Supplements, 173, 15
‘*Observed Properties of Dark Matter: dynamical studies of dSph galaxies*’
20. **Koch, A.** 2007, Ph.D. Dissertation Summary, PASP, 119, 347
‘*Chemical and Kinematical Evolution in nearby Dwarf Spheroidal Galaxies*’
19. Wilkinson, M.I., Kleyna, J.T., Gilmore, G.F., Evans, N.W., **Koch, A.**, Grebel, E.K., Wyse, R.F.G., & Harbeck, D.R. 2006, The Messenger, 124, 25:
‘*Probing the dark matter content of Local Group dwarf spheroidal galaxies with FLAMES*’
18. **Koch, A.**, Grebel, E.K., Wyse., R.F.G., Kleyna, J.T., Wilkinson, M.I., Harbeck, D., Gilmore, G.F., & Evans, N.W. 2006, The Messenger, 123, 38:
‘*The age-metallicity degeneracy in the dwarf spheroidal Carina as seen by FLAMES*’
17. **Koch, A.**, Wilkinson, M.I., Kleyna, J.T., Gilmore, G.F., Evans, N.W., & Grebel, E.K. 2005, BAAS, 37, 1345:
‘*Stellar kinematics in the Leo I dwarf spheroidal galaxy – wide field implications for galactic mass profiles*’
16. Grebel, E.K., **Koch, A.**, & Sambhus, N. 2005, BAAS, 37, 1346:
‘*Satellite Anisotropies: A Polar Great Plane of M31 Early-Type Companions*’
15. Wyse, R.F.G., Gilmore, G.F., Norris, J.E., Wilkinson, M.I., Kleyna, J.T., **Koch, A.**, Evans, N.W., & Grebel, E.K. 2005, BAAS, 37, 1368:
‘*Further evidence for a merger origin for the Thick disk: Galactic stars along line-of-sight to dwarf spheroidal galaxies*’
14. Wilkinson, M.I., Kleyna, J.T., Evans, N.W., Gilmore, G.F., Read, J.I., **Koch, A.**, Grebel, E.K., & Irwin, M. 2005, in ‘Mass Profiles and Shapes of Cosmological Structures’, G. Mamon, F. Combes, C. Deffayet, B. Fort (eds.), EAS Publication Series, 20, 105:
‘*The internal kinematics of dwarf spheroidal galaxies*’

13. Glatt, K., Grebel, E.K., & **Koch, A.** 2005, AN, 326, 651:
‘*Star clusters in the Large Magellanic Cloud*’
12. **Koch, A.**, Wilkinson, M.I., Grebel, E.K., Harbeck, D., Kleyna, J.T., Wyse, R., Gilmore, G.F., & Evans, N.W. 2005, in ‘Near-field Cosmology with Dwarf Elliptical Galaxies’, H. Jerjen, B. Binggeli (eds.), IAUC, 198, 134:
‘*The chemical evolution of subpopulations in the Carina dwarf spheroidal galaxy*’
11. Wilkinson, M.I., Kleyna, J.T., Evans, N.W., Gilmore, G.F., Grebel, E.K., **Koch, A.**, Read, J., & Young, R. 2005, in ‘Near-field Cosmology with Dwarf Elliptical Galaxies’, H. Jerjen, B. Binggeli (eds.), IAUC, 198, 240:
‘*Substructure in Dwarf Spheroidals – a Star Cluster Connection?*’
10. Harbeck, D., Gallagher, J.S., Grebel, E.K., **Koch, A.**, & Zucker, D.B. 2005, AAS, 205, 9301:
‘*WIYN observations of And IX: A metal poor, low-mass dSph Galaxy*’
9. **Koch, A.**, Grebel, E.K., Harbeck, D., Wilkinson, M.I., Kleyna, J.T., Gilmore, G.F., Wyse, R.F.G., & Evans, N.W. 2005, ESO-Arcetri Workshop, ‘Chemical Abundances and Mixing in Stars’, L. Pasquini, S. Randovich (eds.), Springer Verlag, 249 (astro-ph/0410435):
‘*Chemical evolution in the Carina dSph*’
8. **Koch, A.**, Grebel, E.K., Harbeck, D., Wilkinson, M.I., Kleyna, J.T., Gilmore, G.F., Wyse, R.F.G., & Evans, N.W. 2004, ANS, 325, 44:
‘*The Metallicity and Age Distribution of the Carina Dwarf Spheroidal Galaxy*’
7. **Koch, A.**, & Grebel, E.K. 2004, STScI May 2004 Symposium, ‘Planets to Cosmology: Essential Science In Hubble’s Final Years’, M. Livio (ed.) (Cambridge University Press, astro-ph/0407212):
‘*R-process and α -elements in the Galactic disk: kinematic correlations*’
6. **Koch, A.**, Odenkirchen, M., Grebel, E.K., & Caldwell, J.A.R. 2004, The Messenger, 115, 37:
‘*Correcting spatial gradients: The case of Wide Field Imager Photometry*’
5. **Koch, A.**, Odenkirchen, M., Grebel, E.K., Martínez-Delgado, D., & Caldwell, J.A.R. 2004, in ‘Satellites and tidal streams’, IAC/ING Joint Conference, A.S.P. Conf. Ser. 327, 333, F. Prada, D. Martínez-Delgado, T.J. Mahoney (eds.):
‘*The luminosity function of Palomar 5 and its tidal tails*’
4. **Koch, A.**, Odenkirchen, M., Caldwell, J.A.R., & Grebel, E.K. 2003, ANS, 324, 144:
‘*A retrospective of r-process and α -element abundances in the Galactic disk – correlations with rotational velocity*’
3. **Koch, A.**, Odenkirchen, M., Grebel, E.K., Martínez-Delgado, D., & Caldwell, J.A.R., 2003, ANS, 324, 144:
‘*Mass segregation in the low-concentration globular cluster Palomar 5*’
2. **Koch, A.**, Odenkirchen, M., Caldwell, J.A.R., & Grebel, E.K. 2002, ANS, 324, 95:
‘*A calibration map for the Wide Field Imager*’,

1. **Koch, A.**, Odenkirchen, M., Caldwell, J.A.R., & Grebel, E.K. 2002, ANS, 324, 79:
'The mass function of the globular cluster Palomar 5 and its tidal tails'

3 Theses

2. **Koch, A.** 2006, Ph.D. Thesis, University of Basel:
'Chemical and Kinematical Evolution in nearby Dwarf Spheroidal Galaxies'
1. **Koch, A.** 2003, Diploma Thesis, University of Heidelberg:
'The luminosity function of the globular cluster Palomar 5 and its tidal tails'