

Matthew A. Kenworthy

Curriculum Vitae - July 2, 2019

Leiden Observatory

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Education

- 1995-1999 **PhD** [Institute of Astronomy, University of Cambridge](#), Astronomy
1992-1995 **BA (Hons)** [University of Oxford](#), Physics

Employment

- 2015- **Associate Professor**, Leiden Observatory, The Netherlands.
2010-2015 **Assistant Professor**, Leiden Observatory, The Netherlands.
2007-2009 **Assistant Astronomer**, Steward Observatory, USA.
2003-2007 **Instrument Scientist for the MMT AO System**, Steward Observatory, USA.
2001-2003 **Postdoctoral Research Associate**, University of Cincinnati, USA.
1999-2001 **Postdoctoral Research Associate**, Steward Observatory, USA.

Main Research Interests

- **Ground-based extrasolar planet imaging:** Using the largest telescopes in the world to directly detect and characterise extrasolar planets. Developing and implementing image processing algorithms to understand the nature of quasi-static aberrations in the telescope and subsequently minimise them.
- **Hill sphere ring systems** Planets in very young stellar systems accrete material from the circumstellar disk through a Hill-sphere filling circumplanetary disk, and onto their cores. There is a transition period where the the circumplanetary disk becomes optically thin as gas and dust are accreted into rings and moons, during which time we can detect these giant ring-like structures through their transit signals as seen on Earth. This provides a unique insight into the early history of planet and moon formation and evolution. J1407 and PDS 110 are two prototype transiting Hill sphere systems that we study, and we are searching for more in archival data.
- **Novel instrumentation techniques:** Developing visible and near-infrared instrumentation that complements traditional imaging and long slit spectroscopy, ranging from integral field spectrographs using optical fibers and hexagonal lenslet arrays, through to coronagraphic and phase apodizing techniques for high contrast imaging of extrasolar planet systems.

Teaching

2019 Autumn	High Contrast Imaging (Masters course), Leiden
2019 Spring	Detection of Light (Masters course), Leiden
2017 Autumn	Astronomical Telescopes and Instruments (Masters course), Leiden
2017 Autumn	High Contrast Imaging (Masters course), Leiden
2016 Autumn	Astronomical Telescopes and Instruments (Masters course), Leiden
2015 Autumn	High Contrast Imaging (Masters course), Leiden
2015 Autumn	Astronomy and Instrumentation (Masters course), Leiden
2014 Autumn	Astronomy and Instrumentation (Masters course), Leiden
2014 Spring	Detection of Light (Masters course), Leiden
2013 Autumn	Modern Sterrenkundig Onderzoek (BSc second year), Leiden
2013 Autumn	NOVA Fall School (All incoming graduate students to Netherlands)
2012 Autumn	ACAO Summer School (Bachelor students from all over Africa), South Africa
2012 Autumn	Modern Sterrenkundig Onderzoek (BSc second year), Leiden
2012 Autumn	Detection of Light (Masters course), Leiden
2011 Autumn	Modern Sterrenkundig Onderzoek (BSc second year), Leiden
2011 Spring	Detection of Light (Masters course), Leiden

Research Grants and Awards

2016	NWO/NRF - P.I. Matthew Kenworthy 12kEuro for 'Put a ring on it: looking for rings around the exoplanet Beta Pic b'
2015-2019	NWO/FAPESP Collaboration - P.I. Matthew Kenworthy 240kEuro for 4 year graduate student support
2013-2018	NOVA Postdoc for SPHERE ZIMPOL - (as Co-I) P.I. Christoph Keller Funds for 5 year postdoctoral support
2014	NWO/NRF - P.I. Matthew Kenworthy 12kEuro for 'Development of an Economical Adaptive Optics System'
2013	HST Support - supervisor to the P.I. Tiffany Meshkat Funds for multi-cycle observations
2011-2015	ESFRI Graduate student - P.I. Matthew Kenworthy 250kEuro Full graduate student support
2011-2015	Marie Curie IRG - P.I. Matthew Kenworthy 100kEuro over four years
2009-2011	NSF AST ATI - P.I. Matthew Kenworthy US\$433K over two years <i>'Thermal Imaging of Extrasolar Planets with the LBT'</i>
2008-2010	NSF AST ATI - (as Co-I) P.I. Johnan Codona US\$459K over two years <i>'Adaptive Halo Suppression for High-contrast mid-IR imaging'</i>
2005-2009	NASA TPF Foundation Science - P.I. Matthew Kenworthy US\$330K award over 4 years <i>'Detecting exo-Jupiters through Focal Plane Wavefront Sensing'</i>
2003-2005	Chandra Cycle 4 - Proposal 4200417 - P.I. Marc Gagne US\$12K support for Near IR Observations <i>'Deep Inside the Lagoon Nebula'</i>

Supervision of PhD students and post graduates

From 2010 to 2018, I have supervised 11 MSc projects and 7 undergraduate projects on astronomy and instrumentation, (see Table 1). I have supervised two PhD students, Tiffany Meshkat and Gilles Otten, co-supervised Tim van Werkhoven (2014) and co-supervise postdoctoral fellow Christian Ginski (2014—2018).

My current graduate students are Emiel Por (2016—), Alex Bohn (2017—) and Dirk van Dam (2018—)

Name	Level	Title	Dates	Grade
Jens Hoeijmakers & Ritse Heinsbroek	Bachelor	"Looking for faint stellar companions to A-type stars using image convolution"	11/2011	8.0
Sascha Zeegers	Major Masters	"Transit Spectroscopy of nearby debris disks"	11/2011 to 10/2012	8.0
Joris Voorn	BO Natuur	"Stability of multimode fibers for exoplanet spectroscopy"	11/2011 to 07/2012	8.0
Mason Carney	Minor Masters	"Modeling a Stepped Luneberg Lens for All-Sky Imaging"	10/2011 to 10/2012	8.0
Ari Karisli & Stefano Metafuni	BO Natuur	"Allskycam at Leiden Observatory"	01/2013 to 07/2013	6.5
Emiel Por	BO Natuur	"Sparse Aperture Masking at the Leiden Old Observatory"	01/2013 to 07/2013	9.5
Arisa Hatagaya	Major Masters	"Searching for Transiting Planets around β Pictoris"	06/2013 to 01/2014	7.5
Martijn Oei	BO Natuur	"A Polarization induced dOTF wavefront sensor"	02/2014 to 07/2014	9.0
Luis Henry Quiroga Nunez	Minor Masters	"Principal Component Analysis on HST Data"	11/2013 to 08/2014	8.0
Tim van Werkhoven	PhD Chapter	"Exomoons in the J1407 system"	01/2013 to 01/2014	—
Pim Overgaauw	Minor Masters	"Finding the Drake Equation for Tidally Heated Exomoons"	02/2014 to 09/2014	8.0
Julia Heuritsch	Major Masters	"Searching for J1407b Analogues in All-Sky Surveys"	09/2014 to 07/2015	7.0
Kiera Brooks	Major Masters	"On-sky testing of the Polarization dOTF Wavefront Sensor Camera"	12/2014	—
Tiffany Meshkat	Graduate Thesis	"Direct Imaging of Extrasolar Planets"	06/2011 to 06/2015	
Gilles Otten	Graduate Thesis	"Developing High Contrast Optics and PSI"	11/2011 to 11/2016	
Emiel Por	Graduate Thesis	"Focal Plane Wavefront Sensing for Exoplanet detection"	10/2016 to	
Alexander Bohn	Graduate Thesis	"The YOUNG SUNS Survey for Exoplanets in Sco Cen"	10/2017 to	
Patrick Dorval	Major Masters	"Developing bRing - the Beta Pictoris Monitoring Camera for the Hill Sphere Transit"	06/2016 to 06/2017	
Dirk van Dam	Minor Masters	"Upper limits on polarization light from exorings around J1407b"	9/2016 to 9/2017	
Nilofar Khorshid	Major Masters	"Improving the photometry from bRing"	9/2017 to	
Jorge Andres Villa Vandez	Minor Masters	"Determining the occurrence rates of exoring systems using GAIA"	9/2017 to	
Erik Weenk and Marit Mol Lous	Bachelor	"Constraining the existence of Beta Pictoris c"	01/2017 to 06/2017	

Service & Committees (Institutional, active in italics)

I contribute to the Leiden Observatory department in several areas of management and administration, notably:

- *Masters Admission Committee 2014—*
- *Promotie Belidings Committee 2013—2014* Leiden Observatory has one of the largest graduate programs in Europe with over 70 students in the academic year 2013. We talk with all the students once a year to listen to any concerns they might have and to ensure that they are progressing with their studies.
- *Opleidingscommissie van Natuurkunde en Sterrenkunde 2014—*
- *Opleidingscommissie 2014—*
- Leiden Observatory Colloquium organiser 2011—2014.
- Masters Students Astronomy colloquium 2010—2012.

Service & Committees (External, active in bold)

- **2014— Simulations of first light E-ELT instrument Workshop Organiser**, with the goal to unify the atmospheric and instrument parameters for consistent modeling.
- 2014—2016 [ESO Users Committee](#), representing the opinions of Dutch astronomers to the European Southern Observatory.
- **2012— Coronagraphic design lead** for the E-ELT instrument METIS as part of an international consortium.
- **2012— Coronagraphic design lead** for [ERIS](#), a second generation thermal infrared imaging camera for the VLT.
- **2013 — 2016 ING Time Allocation Committee.**
- **Review papers for ApJ, PASP, MNRAS, and other major astronomy journals.**
- **Program Committee for the SPIE Astronomical Telescopes + Instrumentation 2016, 2018**
- 2013 Group leader for the Rocky Exoplanets panel on the NWO [PEPSci](#) program, coordinating several proposals within the funding agency.
- 2011—2014 NOVA Colloquium Organiser for the four astronomy institutes, organising week long visits from international prominent researchers.
- **NSF and ERC Panel Reviewer** in 2010, 2013, 2015 and 2016, typically reading over a dozen proposals and acting as lead reviewer on 3 to 4 proposals each time.
- Canadian National Science Panel Reviewer in 2012.
- [Lorentz Center Workshop](#) Organiser for:

- [“Rocks, Rubble and Rings: Understanding Deep and Irregular Transits”](#) in October 2016.
- [“Combining Coronagraphs and Wavefront Control”](#) in October 2014.
- [“How to find our Nearest Neighbours”](#) in October 2012

Invited Colloquia and Research Talks

- 2019 November - Leicester University
- 2019 September - PLATO Science Meeting (Invited Talk), Warwick University
- 2019 May - NOAO Flash Talk
- 2019 May - SESE Coffee Talk, Arizona State University
- 2018 November - ROE Coffee Talk, Edinburgh
- 2018 June - Exeter Astrophysics Colloquium
- 2018 April - Caltech Coffee Talk
- 2018 April - JPL/MPIA Workshop
- 2017 October - NAOJ, Japan
- 2017 October - ELSI, Kobe
- 2017 September - Imperial College
- 2017 August - Exorings, Boise, ID
- 2017 May - University of Marburg
- 2017 April - Joan van der Waals, Leiden Physics
- 2017 January - Aarhus University
- 2016 August - BRITE Consortium
- 2016 May - NAC
- 2016 May - University of Wisconsin, Madison Lunch Talk
- 2016 April - NOAO FLASH Lunch Talk
- 2016 February - TU Delft
- 2016 January - Queens University Belfast
- 2015 December - Oxford University
- 2015 November - University of Cardiff
- 2015 September - Keynote talk at EPSC, Nantes.
- 2015 July - University of Cambridge

- 2015 April - University of Warwick
- 2015 April - SRON, NL
- 2015 March - University of Exeter
- 2015 February - ETH Zurich
- 2014 November - Royal Observatory Edinburgh
- 2014 October - University College London
- 2014 June - Gordon Research Conference
- 2013 October - Grenoble Observatory
- 2013 April - STScI
- 2012 December - ACAO Summer School
- 2012 September - ASTRON Colloquium
- 2012 April - Lund Colloquium
- 2012 March - Groningen
- 2012 March - OSP II Talks
- 2011 September - AO4ELT2 Conference
- 2011 September - ESTEC
- 2011 April - Groningen

Bibliography of Publications

2351	citations for 218 bibliographic references in the Astrophysics Data System
87	Refereed publications
26	Hirsch <i>h</i>-index (i.e. 26 publications with ≥ 26 citations)
57	SPIE Instrumentation Papers

[Google Scholar citations](#)

Refereed Papers

- A77. [First direct detection of a polarized companion outside a resolved circumbinary disk around CS Chamaeleonis](#)
Ginski, C., Benisty, M., van Holstein, R. G., Juhász, A., Schmidt, T. O. B., Chauvin, G., de Boer, J., Wilby, M., Manara, C. F., Delorme, P., Ménard, F., Pinilla, P., Birnstiel, T., Flock, M., Keller, C., Kenworthy, M., Milli, J., Olofsson, J., Pérez, L., Snik, F., and Vogt, N., **2018**, *A&A*, 616, A79
- A76. [Constraining the period of the ringed secondary companion to the young star J1407 with photographic plates](#)
Mentel, R. T., Kenworthy, M. A., Cameron, D. A., Scott, E. L., Mellon, S. N., Hudec, R., Birkby, J. L., Mamajek, E. E., Schrimpf, A., Reichart, D. E., Haislip, J. B., Kouprianov, V. V., Hamsch, F.-J., Tan, T.-G., Hills, K., Grindlay, J. E., Rodriguez, J. E., Lund, M. B., and Kuhn, R. B., **2018**, *A&A*, 619, A157
- A75. [Data calibration for the MASCARA and bRing instruments](#)
Talens, G. J. J., Deul, E. R., Stuik, R., Burggraaff, O., Lesage, A.-L., Spronck, J. F. P., Mellon, S. N., Bailey, J. I., Mamajek, E. E., Kenworthy, M. A., and Snellen, I. A. G., **2018**, *A&A*, 619, A154
- A74. [The Little Dippers: Transits of Star-grazing Exocomets?](#)
Ansdell, M., Gaidos, E., Jacobs, T. L., Mann, A., Manara, C. F., Kennedy, G. M., Vanderburg, A. M., Kenworthy, M., Hirano, T., LaCourse, D. M., Hedges, C., and Frasca, A., **2018**, *MNRAS*
- A73. [Feasibility of the debris ring transit method for the solar-like star HD 107146 by an occulted galaxy](#)
van Sluijs, L., Vaendel, D. A. J. H., Holwerda, B. W., Kenworthy, M. A., and Schneider, G., **2018**, *MNRAS*, 480, 914
- A72. [A search for transiting planets in the \$\beta\$ Pictoris system](#)
Lous, M. M., Weenk, E., Kenworthy, M. A., Zwintz, K., and Kuschnig, R., **2018**, *A&A*, 615, A145
- A71. [A New Standard for Assessing the Performance of High Contrast Imaging Systems](#)
Jensen-Clem, R., Mawet, D., Gomez Gonzalez, C. A., Absil, O., Belikov, R., Currie, T., **Kenworthy, M. A.**, Marois, C., Mazoyer, J., Ruane, G., Tanner, A., and Cantalloube, F., **2018**, *AJ*, 155, 19
- A70. [Characterizing exo-ring systems around fast-rotating stars using the Rossiter-McLaughlin effect](#)
de Mooij, E. J. W., Watson, C. A., and **Kenworthy, M. A.**, **2017**, *MNRAS*, 472, 2713

- A69. *bRing: An observatory dedicated to monitoring the β Pictoris b Hill sphere transit*
Stuik, R., Bailey, J. I., Dorval, P., Talens, G. J. J., Luginja, I., Mellon, S. N., Lomberg, B. B. D., Crawford, S. M., Ireland, M. J., Mamajek, E. E., and **Kenworthy, M. A.**, **2017**, A&A, 607, A45
- A68. *Periodic eclipses of the young star PDS 110 discovered with WASP and KELT photometry*
Osborn, H. P., Rodriguez, J. E., **Kenworthy, M. A.**, Kennedy, G. M., Mamajek, E. E., Robinson, C. E., Espaillat, C. C., Armstrong, D. J., Shappee, B. J., Bieryla, A., Latham, D. W., Anderson, D. R., Beatty, T. G., Berlind, P., Calkins, M. L., Esquerdo, G. A., Gaudi, B. S., Hellier, C., Holoen, T. W.-S., James, D., Kochanek, C. S., Kuhn, R. B., Lund, M. B., Pepper, J., Pollacco, D. L., Prieto, J. L., Siverd, R. J., Stassun, K. G., Stevens, D. J., Stanek, K. Z., and West, R. G., **2017**, MNRAS, 471, 740
- A67. *Three Years of SPHERE: The Latest View of the Morphology and Evolution of Protoplanetary Discs*
Garufi, A., Benisty, M., Stolker, T., Avenhaus, H., de Boer, J. ., Pohl, A., Quanz, S. P., Dominik, C., Ginski, C., Thalmann, C., van Boekel, R., Boccaletti, A., Henning, T., Janson, M., Salter, G., Schmid, H. M., Sissa, E., Langlois, M., Beuzit, J.-L., Chauvin, G., Mouillet, D., Augereau, J.-C., Bazzon, A., Biller, B., Bonnefoy, M., Buenzli, E., Cheetham, A., Daemgen, S., Desidera, S., Engler, N., Feldt, M., Girard, J., Gratton, R., Hagelberg, J., Keller, C., Keppler, M., **Kenworthy, M.**, Kral, Q., Lopez, B., Maire, A.-L., Menard, F., Mesa, D., Messina, S., Meyer, M. R., Milli, J., Min, M., Muller, A., Olofsson, J., Pawellek, N., Pinte, C., Szulagyi, J., Vigan, A., Wahhaj, Z., Waters, R., and Zurlo, A., **2017**, Msngr, 169, 32
- A66. *Looking for rings and things*
Kenworthy, M., **2017**, NatAs, 1, 0099
- A65. *The transiting dust clumps in the evolved disc of the Sun-like UXor RZ Psc*
Kennedy, G. M., **Kenworthy, M. A.**, Pepper, J., Rodriguez, J. E., Siverd, R. J., Stassun, K. G., and Wyatt, M. C., **2017**, RSOS, 4, 160652
- A64. *On-sky Performance Analysis of the Vector Apodizing Phase Plate Coronagraph on MagAO/Clio2*
Otten, G. P. P. L., Snik, F., **Kenworthy, M. A.**, Keller, C. U., Males, J. R., Morzinski, K. M., Close, L. M., Codona, J. L., Hinz, P. M., Hornburg, K. J., Brickson, L. L., and Escuti, M. J., **2017**, ApJ, 834, 175
- A63. *The peculiar dipping events in the disc-bearing young-stellar object EPIC 204278916*
Scaringi, S., Manara, C. F., Barenfeld, S. A., Groot, P. J., Isella, A., **Kenworthy, M. A.**, Knigge, C., Maccarone, T. J., Ricci, L., and Ansdell, M., **2016**, MNRAS, 463, 2265
- A62. *Constraints on the size and dynamics of the J1407b ring system*
Rieder, S. and **Kenworthy, M. A.**, **2016**, A&A, 596, A9
- A61. *Direct detection of scattered light gaps in the transitional disk around HD 97048 with VLT/SPHERE*
Ginski, C., Stolker, T., Pinilla, P., Dominik, C., Boccaletti, A., de Boer, J., Benisty, M., Biller, B., Feldt, M., Garufi, A., Keller, C. U., **Kenworthy, M.**, Maire, A. L., Ménard, F., Mesa, D., Milli, J., Min, M., Pinte, C., Quanz, S. P., van Boekel, R., Bonnefoy, M., Chauvin, G., Desidera, S., Gratton, R., Girard, J. H. V., Keppler, M., Kopytova, T., Lagrange, A.-M., Langlois, M., Rouan, D., and Vigan, A., **2016**, A&A, 595, A112

- A60. *All NIRspec Needs is HST/WFC3 Pre-Imaging? The Use of Milky Way Stars in WFC3 Imaging to Register NIRspec MSA Observations*
Holwerda, B. W., Bouwens, R. J., Trenti, M., and **Kenworthy, M. A.**, 2016, JAI, 5, 1650008
- A59. *The size and shape of the Milky Way disc and halo from M-type brown dwarfs in the BoRG survey*
van Vledder, I., van der Vlugt, D., Holwerda, B. W., **Kenworthy, M. A.**, Bouwens, R. J., and Trenti, M., 2016, MNRAS, 458, 425
- A58. *A narrow, edge-on disk resolved around HD 106906 with SPHERE*
Lagrange, A.-M., Langlois, M., Gratton, R., Maire, A.-L., Milli, J., Olofsson, J., Vigan, A., Bailey, V., Mesa, D., Chauvin, G., Boccaletti, A., Galicher, R., Girard, J. H., Bonnefoy, M., Samland, M., Menard, F., Henning, T., **Kenworthy, M.**, Thalmann, C., Beust, H., Beuzit, J.-L., Brandner, W., Buenzli, E., Cheetham, A., Janson, M., le Coroller, H., Lannier, J., Mouillet, D., Peretti, S., Perrot, C., Salter, G., Sissa, E., Wahhaj, Z., Abe, L., Desidera, S., Feldt, M., Madec, F., Perret, D., Petit, C., Rabou, P., Soenke, C., and Weber, L., 2016, A&A, 586, L8
- A57. *Rings of a Super Saturn*
Kenworthy, M., 2015, SciAm, 314, 34
- A56. *Searching for gas giant planets on Solar system scales - a NACO/APP L'-band survey of A- and F-type main-sequence stars*
Meshkat, T., **Kenworthy, M. A.**, Reggiani, M., Quanz, S. P., Mamajek, E. E., and Meyer, M. R., 2015, MNRAS, 453, 2533
- A55. *Discovery of a low-mass companion to the F7V star HD 984*
Meshkat, T., Bonnefoy, M., Mamajek, E. E., Quanz, S. P., Chauvin, G., **Kenworthy, M. A.**, Rameau, J., Meyer, M. R., Lagrange, A.-M., Lannier, J., and Delorme, P., 2015, MNRAS, 453, 2378
- A54. *The dependence of the A_V prior for SN Ia on host mass and disc inclination*
Holwerda, B. W., Keel, W. C., **Kenworthy, M. A.**, and Mack, K. J., 2015, MNRAS, 451, 2390
- A53. *Confirmation and Characterization of the Protoplanet HD 100546 b — Direct Evidence for Gas Giant Planet Formation at 50 AU*
Quanz, S. P., Amara, A., Meyer, M. R., Girard, J. H., **Kenworthy, M. A.**, and Kasper, M., 2015, ApJ, 807, 64
- A52. *Combining high-dispersion spectroscopy with high contrast imaging: Probing rocky planets around our nearest neighbors*
Snellen, I., de Kok, R., Birkby, J. L., Brandl, B., Brogi, M., Keller, C., **Kenworthy, M.**, Schwarz, H., and Stuik, R., 2015, A&A, 576, A59
- A51. *Modeling Giant Extrasolar Ring Systems in Eclipse and the Case of J1407b: Sculpting by Exomoons?*
Kenworthy, M. A. and Mamajek, E. E., 2015, ApJ, 800, 126
- A50. *Searching for Planets in Holey Debris Disks with the Apodizing Phase Plate*
Meshkat, T., Bailey, V. P., Su, K. Y. L., **Kenworthy, M. A.**, Mamajek, E. E., Hinz, P. M., and Smith, P. S., 2015, ApJ, 800, 5

- A49. [Mass and period limits on the ringed companion transiting the young star J1407](#)
Kenworthy, M. A., Lacour, S., Kraus, A., Triaud, A. H. M. J., Mamajek, E. E., Scott, E. L., Ségransan, D., Ireland, M., Hamsch, F.-J., Reichart, D. E., Haislip, J. B., LaCluyze, A. P., Moore, J. P., and Frank, N. R., **2015**, MNRAS, 446, 411
- A48. [Performance characterization of a broadband vector Apodizing Phase Plate coronagraph](#)
Otten, G. P. P. L., Snik, F., **Kenworthy, M. A.**, Miskiewicz, M. N., and Escuti, M. J., **2014**, OExpr, 22, 30287
- A47. [Fundamental Limitations of High Contrast Imaging Set by Small Sample Statistics](#)
Mawet, D., Milli, J., Wahhaj, Z., Pelat, D., Absil, O., Delacroix, C., Boccaletti, A., Kasper, M., **Kenworthy, M. A.**, Marois, C., Mennesson, B., and Pueyo, L., **2014**, ApJ, 792, 97
- A46. [Analysis of 1SWASP J140747.93-394542.6 eclipse fine-structure: hints of exomoons](#)
van Werkhoven, T. I. M., **Kenworthy, M. A.**, and Mamajek, E. E., **2014**, MNRAS, 441, 2845
- A45. [Fast & Furious focal-plane wavefront sensing](#)
Korkiakoski, V., Keller, C. U., Doelman, N., **Kenworthy, M. A.**, Otten, G., and Verhaegen, M., **2014**, ApOpt, 53, 4565
- A44. [WTS-2 b: a hot Jupiter orbiting near its tidal destruction radius around a K dwarf](#)
Birkby, J. L., Cappetta, M., Cruz, P., Koppenhoefer, J., Ivanyuk, O., Mustill, A. J., Hodgkin, S. T., Pinfield, D. J., Sipócz, B., Kovács, G., Saglia, R., Pavlenko, Y., Barrado, D., Bayo, A., Campbell, D., Catalan, S., Fossati, L., Gálvez-Ortiz, M.-C., **Kenworthy, M.**, Lillo-Box, J., Martín, E. L., Mislis, D., de Mooij, E. J. W., Nefs, S. V., Snellen, I. A. G., Stoev, H., Zendejas, J., del Burgo, C., Barnes, J., Goulding, N., Haswell, C. A., Kuznetsov, M., Lodieu, N., Murgas, F., Palle, E., Solano, E., Steele, P., and Tata, R., **2014**, MNRAS, 440, 1470
- A43. [Feasibility of transit photometry of nearby debris discs](#)
Zeegers, S. T., **Kenworthy, M. A.**, and Kalas, P., **2014**, MNRAS, 439, 488
- A42. [HD 106906 b: A Planetary-mass Companion Outside a Massive Debris Disk](#)
Bailey, V., Meshkat, T., Reiter, M., Morzinski, K., Males, J., Su, K. Y. L., Hinz, P. M., **Kenworthy, M. A.**, Stark, D., Mamajek, E., Briguglio, R., Close, L. M., Follette, K. B., Puglisi, A., Rodigas, T., Weinberger, A. J., and Xompero, M., **2014**, ApJ, 780, LL4
- A41. [Optimized Principal Component Analysis on Coronagraphic Images of the Fomalhaut System](#)
Meshkat, T., **Kenworthy, M. A.**, Quanz, S. P., and Amara, A., **2014**, ApJ, 780, 17
- A40. [Confirmation of the Planet around HD 95086 by Direct Imaging](#)
Rameau, J., Chauvin, G., Lagrange, A.-M., Meshkat, T., Boccaletti, A., Quanz, S. P., Currie, T., Mawet, D., Girard, J. H., Bonnefoy, M., and **Kenworthy, M.**, **2013**, ApJ, 779, LL26
- A39. [The Solar Neighborhood. XXX. Fomalhaut C](#)
Mamajek, E. E., Bartlett, J. L., Seifahrt, A., Henry, T. J., Dieterich, S. B., Lurie, J. C., **Kenworthy, M. A.**, Jao, W.-C., Riedel, A. R., Subasavage, J. P., Winters, J. G., Finch, C. T., Ianna, P. A., and Bean, J., **2013**, AJ, 146, 154
- A38. [Calibrating a high-resolution wavefront corrector with a static focal-plane camera](#)
Korkiakoski, V., Doelman, N., Codona, J., **Kenworthy, M. A.**, Otten, G., and Keller, C. U., **2013**, ApOpt, 52, 7554

- A37. [Erratum: "Discovery of a Probable 4-5 Jupiter-mass Exoplanet to HD 95086 by Direct-imaging"](#)
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Outreach

Popular science talks given:

- 2017 October 26 - Science Cafe Wegeningen - "Large Telescopes"
- 2017 October 12 - Mr. Withers - Wood End School, Harpenden, Hertfordshire. Skype with 3 classes.
- 2017 September 11 - Ewell Astronomical Society -
- 2017 June - Primary School Skype
- 2017 May - Lions Club, Leiden
- 2017 March 27 - Leiden inaugural "Astronomy On Tap"
- 2017 March 17 - Skype talks with Group 5 at St Cuthbert's school in Quorn, England
- 2016 September - [Ewell Astronomical Society](#), London - "The discovery of a giant ring system around the exoplanet J1407b"
- 2016 November 22 - Beth Spear, Westosha Central High School
- 2016 February - Cuba City High School
- 2015 October 27 - [Leidse Weer- en Sterrekundige Kring](#) - "The discovery of a giant ring system around the exoplanet J1407b"
- 2015 April 22 - American School of the Hague - "Extrasolar Planets and Rings"
- 2015 July 05 - Leiden LEAPS Program - "Introduction to Exoplanet Detection"

Popular press articles written:

- "Sharpening the Sky with Adaptive Optics" in *Yearbook of Astronomy 2006*, ed. Patrick Moore, MacMillan.
- "Challenges with the MMT Adaptive Optics System" an Invited article for the *Center for Adaptive Optics Newsletter*, **3**, 1 (Winter 2006)
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