Painting with starlight : optical techniques for the high-contrast imaging of exoplanets

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Bibliography

Adams, D. 1986, The Hitch Hiker's Guide to the Galaxy: A Trilogy in Four Parts, Hitchhiker's Guide to the Galaxy Series (Heinemann)

Aime, C. & Soummer, R. 2004, ApJ, 612, L85

Alexander, R. D. & Armitage, P. J. 2007, Monthly Notices of the Royal Astronomical Society, 375, 500

Amara, A. & Quanz, S. P. 2012, MNRAS, 427, 948

Andrews, S. M., Wilner, D. J., Zhu, Z., et al. 2016, ApJ, 820, L40

Anglada-Escudé, G., Amado, P. J., Barnes, J., et al. 2016, Nature, 536, 437

Avenhaus, H., Quanz, S. P., Meyer, M. R., et al. 2014a, ApJ, 790, 56

Avenhaus, H., Quanz, S. P., Schmid, H. M., et al. 2014b, ApJ, 781, 87

Baraffe, I., Chabrier, G., Barman, T. S., Allard, F., & Hauschildt, P. H. 2003, A&A, 402, 701

Barata, J. C. A. & Hussein, M. S. 2012, Brazilian Journal of Physics, 42, 146

Baudoz, P., Dorn, R. J., Lizon, J.-L., et al. 2010, in Proc. SPIE, Vol. 7735, Ground-based and Airborne Instrumentation for Astronomy III, 77355B

Baudoz, P., Rabbia, Y., & Gay, J. 2000, A&AS, 141, 319

Benisty, M., Juhasz, A., Boccaletti, A., et al. 2015, A&A, 578, L6

Benisty, M., Stolker, T., Pohl, A., et al. 2017, A&A, 597, A42

Beuzit, J.-L., Feldt, M., Dohlen, K., et al. 2008, in Proc. SPIE, Vol. 7014, Ground-based and Airborne Instrumentation for Astronomy II, 701418

Biller, B. A., Close, L. M., Lenzen, R., et al. 2006, in IAU Colloq. 200: Direct Imaging of Exoplanets: Science and Techniques, ed. C. Aime & F. Vakili, 571–576

Biller, B. A., Close, L. M., Masciadri, E., et al. 2007, ApJS, 173, 143

Biller, B. A., Liu, M. C., Rice, K., et al. 2015, MNRAS, 450, 4446

Boehle, A., Glauser, A. M., Kenworthy, M. A., et al. 2018, in Proc. SPIE, Vol. 10702, Ground-based and Airborne Instrumentation for Astronomy VII, 10702 – 10702 – 8

Bonnefoy, M., Zurlo, A., Baudino, J. L., et al. 2016, A&A, 587, A58

Booth, M. J. 2003, Proc. SPIE, 5162, 79

Borucki, W. J., Koch, D., Basri, G., et al. 2010, Science, 327, 977

Boss, A. P. 2001, ApJ, 563, 367

Brandl, B. R., Feldt, M., Glasse, A., et al. 2014, in Proc. SPIE, Vol. 9147, Ground-based and Airborne Instrumentation for Astronomy V, 914721

Brauer, F., Dullemond, C. P., Johansen, A., et al. 2007, A&A, 469, 1169

Brogi, M., Keller, C. U., de Juan Ovelar, M., et al. 2012a, A&A, 545, L5

Brogi, M., Snellen, I. A. G., de Kok, R. J., et al. 2012b, Nature, 486, 502

Brown, B. R. & Lohmann, A. W. 1969, IBM Journal of Research and Development, 13, 160

Calvet, N., D'Alessio, P., Hartmann, L., et al. 2002, ApJ, 568, 1008

Canovas, H., Ménard, F., Hales, A., et al. 2013, A&A, 556, A123

Carrano, C. J., Olivier, S. S., Brase, J. M., Macintosh, B. A., & An, J. R. 1998, in Proc. SPIE, Vol. 3353, Adaptive Optical System Technologies, ed. D. Bonaccini & R. K. Tyson, 658–667

Chabrier, G., Johansen, A., Janson, M., & Rafikov, R. 2014, Protostars and Planets VI, 619

Chambers, J. E. 2006, ApJ, 652, L133

Changhai, L., Fengjie, X., Shengyang, H., & Zongfu, J. 2011, Appl. Opt., 50, 1631

Chauvin, G., Lagrange, A.-M., Dumas, C., et al. 2004, A&A, 425, L29

Cheetham, A. C., Girard, J., Lacour, S., et al. 2016, in Proc. SPIE, Vol. 9907, Optical and Infrared Interferometry and Imaging V, 99072T

Cheney, E. & Kincaid, D. 2009, Linear Algebra: Theory and Applications (Jones and Bartlett Publishers)

Clarke, C. J., Gendrin, A., & Sotomayor, M. 2001, MNRAS, 328, 485

Codona, J. L. 2013, Optical Engineering, 52, 097105

Codona, J. L. & Kenworthy, M. 2013, The Astrophysical Journal, 767, 100

Codona, J. L., Kenworthy, M. A., Hinz, P. M., Angel, J. R. P., & Woolf, N. J. 2006, in Proc. SPIE, Vol. 6269, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, 62691N

Crepp, J. R., Pueyo, L., Brenner, D., et al. 2011, ApJ, 729, 132

Currie, T., Cloutier, R., Brittain, S., et al. 2015, ApJ, 814, L27

Côté, O., Allain, G., Brousseau, D., et al. 2018, in Proc. SPIE, Vol. 10702, Ground-based and Airborne Instrumentation for Astronomy VII, 10702 – 10702 – 8

de Boer, J., Girard, J. H., Canovas, H., et al. 2017, MNRAS, 466, L7

de Boer, J., Salter, G., Benisty, M., et al. 2016, A&A, 595, A114

de Juan Ovelar, M., Pinilla, P., Min, M., Dominik, C., & Birnstiel, T. 2016, MNRAS, 459, L85

de Kok, R. J., Brogi, M., Snellen, I. A. G., et al. 2013, A&A, 554, A82

Doelman, D. S., Snik, F., Warriner, N. Z., & Escuti, M. J. 2017, in Proc. SPIE, Vol. 10400, Techniques and Instrumentation for Detection of Exoplanets VIII, 10400 – 10400 – 12

Doelman, D. S., Tuthill, P., Norris, B., et al. 2018, in Proc. SPIE, Vol. 10701, Optical and Infrared Interferometry and Imaging VI, 10701 – 10701 – 11

Dohlen, K., Langlois, M., Saisse, M., et al. 2008, in Proc. SPIE, Vol. 7014, Ground-based and Airborne Instrumentation for Astronomy II, 70143L

Dohlen, K., Vigan, A., Mouillet, D., et al. 2016, in Proc. SPIE, Vol. 9908, Ground-based and Airborne Instrumentation for Astronomy VI, 99083D

Dong, S., Haist, T., Osten, W., Ruppel, T., & Sawodny, O. 2012, Appl. Opt., 51, 1318

Doucet, C., Habart, E., Pantin, E., et al. 2007, A&A, 470, 625

Draine, B. T. 2006, ApJ, 636, 1114

ESO. 2015, SPHERE user manual, Period 96, Phase 2 (4th release), https://www.eso.org/sci/facilities/paranal/instruments/sphere/doc.html, accessed: 2016-06-21

ESO. 2016, SPHERE user manual, Period 99, Phase 1 (6th release), https://www.eso.org/sci/facilities/paranal/instruments/sphere/doc.html, accessed: 2017-02-06

ESO. 2018, SPHERE user manual, Period 101, Phase 1 (9th release), https://www.eso.org/sci/facilities/paranal/instruments/sphere/doc.html, accessed: 2018-04-13

Fitzgerald, M. P. & Graham, J. R. 2006, ApJ, 637, 541

Fortney, J. J., Marley, M. S., Saumon, D., & Lodders, K. 2008, ApJ, 683, 1104
Fressin, F., Torres, G., Charbonneau, D., et al. 2013, ApJ, 766, 81
Fusco, T., Petit, C., Rousset, G., et al. 2006, in Proc. SPIE, Vol. 6272, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, 62720K
Fusco, T., Sauvage, J.-F., Mouillet, D., et al. 2016, in Proc. SPIE, Vol. 9909, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, 99090U
Fusco, T., Sauvage, J.-F., Petit, C., et al. 2014, in Proc. SPIE, Vol. 9148, Adaptive Optics Systems IV, 91481U
Gaia Collaboration, Brown, A. G. A., Vallenari, A., et al. 2016a, A&A, 595, A2
Gaia Collaboration, Prusti, T., de Bruijne, J. H. J., et al. 2016b, A&A, 595, A1
Garufi, A., Quanz, S. P., Avenhaus, H., et al. 2013, A&A, 560, A105
Ginski, C., Benisty, M., van Holstein, R. G., et al. 2018, A&A, 616, A79
Ginski, C., Stolker, T., Pinilla, P., et al. 2016, A&A, 595, A112
Giorgini, J. et al. 2015, NASA JPL Horizons On-Line Ephemeris System, https://ssd.jpl.nasa.gov/horizons.cgi, last accessed: 2018-04-11
Give'on, A., Belikov, R., Shaklan, S., & Kasdin, J. 2007, Opt. Express, 15, 12338
Give'on, A., Kasdin, N. J., Vanderbei, R. J., & Avitzour, Y. 2006, J. Opt. Soc. Am. A, 23, 1063
Gonsalves, R. A. 1982, Optical Engineering, 21, 215829
Gonsalves, R. A. 2001, Opt. Lett., 26, 684
Gonsalves, R. A. 2002, in European Southern Observatory Conference and Workshop Proceedings, Vol. 58, European Southern Observatory Conference and Workshop Proceedings, ed. E. Vernet, R. Ragazzoni, S. Esposito, & N. Hubin, 121
Gould, A., Udalski, A., Shin, I.-G., et al. 2014, Science, 345, 46
Grady, C. A., Muto, T., Hashimoto, J., et al. 2013, ApJ, 762, 48
Guerri, G., Daban, J.-B., Robbe-Dubois, S., et al. 2011, Experimental Astronomy, 30, 59
Guyon, O. 2003, A&A, 404, 379
Guyon, O., Martinache, F., Cady, E. J., et al. 2012, in Proc. SPIE, Vol. 8447, Adaptive Optics Systems III, 84471X
Haffert, S. Y., Por, E. H., Keller, C. U., et al. 2018a, ArXiv e-prints [arXiv:1803.10693]
Haffert, S. Y., Wilby, M. J., Keller, C. U., & Snellen, I. A. G. 2016, in Proc. SPIE, Vol. 9908, Ground-based and Airborne Instrumentation for Astronomy VI, 990867
Haffert, S. Y., Wilby, M. J., Keller, C. U., et al. 2018b, in Proc. SPIE, Vol. 10703, Adaptive Optics Systems VI, 10703 – 10703 – 11
Heap, S. R., Lindler, D. J., Lanz, T. M., et al. 2000, The Astrophysical Journal, 539, 435
Herbig, G. H. 1960, ApJS, 4, 337
Hoeijmakers, H. J., Schwarz, H., Snellen, I. A. G., et al. 2018, A&A, 617, A144
Howard, A. W., Marcy, G. W., Johnson, J. A., et al. 2010, Science, 330, 653
Howard, A. W., Sanchis-Ojeda, R., Marcy, G. W., et al. 2013, Nature, 503, 381
Hubickyj, O., Bodenheimer, P., & Lissauer, J. J. 2005, AGU Fall Meeting Abstracts, P42A
Jovanovic, N., Absil, O., Baudoz, P., et al. 2018, 10703, 107031U
Jovanovic, N., Martinache, F., Guyon, O., et al. 2015, PASP, 127, 890

Kasdin, N. J., Vanderbei, R. J., Littman, M. G., Carr, M., & Spergel, D. N. 2004, in Proc. SPIE, Vol. 5487, Optical, Infrared, and Millimeter Space Telescopes, ed. J. C. Mather, 1312–1321

Kasper, M., Beuzit, J.-L., Verinaud, C., et al. 2010, Proc. SPIE, 7735, 77352E

Käufl, H.-U., Ballester, P., Biereichel, P., et al. 2004, in Proc. SPIE, Vol. 5492, Ground-based Instrumentation for Astronomy, ed. A. F. M. Moorwood & M. Iye, 1218–1227

Keller, C. U. 2016, in Proc. SPIE, Vol. 9908, Ground-based and Airborne Instrumentation for Astronomy VI, 99089V

Keller, C. U., Korkiakoski, V., Doelman, N., et al. 2012, in Proc. SPIE, Vol. 8447, Adaptive Optics Systems III, 844721

Keller, C. U., Schmid, H. M., Venema, L. B., et al. 2010, in Ground-based and Airborne Instrumentation for Astronomy III, Vol. 7735, 77356G–77356G–13

Kenworthy, M. A., Codona, J. L., Hinz, P. M., et al. 2007, ApJ, 660, 762

Kenworthy, M. A., Hinz, P. M., Codona, J. L., et al. 2010a, in Proc. SPIE, Vol. 7734, Optical and Infrared Interferometry II, 77342P

Kenworthy, M. A., Quanz, S., Meyer, M., et al. 2010b, The Messenger, 141, 2

Kenworthy, M. A., Quanz, S. P., Meyer, M. R., et al. 2010c, in Proc. SPIE, Vol. 7735, Ground-based and Airborne Instrumentation for Astronomy III, 773532

Keppler, M., Benisty, M., Müller, A., et al. 2018, A&A, 617, A44

Kipping, D. M. 2009a, MNRAS, 392, 181

Kipping, D. M. 2009b, MNRAS, 396, 1797

Knutson, H. A., Charbonneau, D., Allen, L. E., et al. 2007, Nature, 447, 183

Komanduri, R. K., Lawler, K. F., & Escuti, M. J. 2013, Opt. Express, 21, 404

Korkiakoski, V., Doelman, N., Codona, J., et al. 2013, Appl. Opt., 52, 7554

Korkiakoski, V., Keller, C. U., Doelman, N., et al. 2012, in Proc. SPIE, Vol. 8447, Adaptive Optics Systems III, 84475Z

Korkiakoski, V., Keller, C. U., Doelman, N., et al. 2014, Appl. Opt., 53, 4565

Kraus, A. L. & Ireland, M. J. 2012, ApJ, 745, 5

Krist, J. E., Balasubramanian, K., Beichman, C. A., et al. 2009, in Proc. SPIE, Vol. 7440, Techniques and Instrumentation for Detection of Exoplanets IV, 74400W

Krist, J. E., Stapelfeldt, K. R., Bryden, G., et al. 2010, AJ, 140, 1051

Kuhn, J. R., Potter, D., & Parise, B. 2001, ApJ, 553, L189

Lafrenière, D., Marois, C., Doyon, R., Nadeau, D., & Artigau, É. 2007, ApJ, 660, 770

Lagrange, A.-M., Bonnefoy, M., Chauvin, G., et al. 2010, Science, 329, 57

Lamb, M., Correia, C., Sauvage, J.-F., et al. 2016, in Proc. SPIE, Vol. 9909, Adaptive Optics Systems V, 99096D

Lawson, P. R., Poyneer, L., Barrett, H., et al. 2012, in Proc. SPIE, Vol. 8447, Adaptive Optics Systems III, 844722

Lenzen, R., Hartung, M., Brandner, W., et al. 2003, in Proc. SPIE, Vol. 4841, Instrument Design and Performance for Optical/Infrared Ground-based Telescopes, ed. M. Iye & A. F. M. Moorwood, 944–952

Lovis, C., Snellen, I., Mouillet, D., et al. 2017, A&A, 599, A16

Lozi, J., Guyon, O., Jovanovic, N., et al. 2018, in Proc. SPIE, Vol. 10703, Adaptive Optics Systems VI, 10703 – 10703 – 12

Lucy, L. B. 1974, AJ, 79, 745

Lyot, B. 1939, MNRAS, 99, 580
Macintosh, B. A., Graham, J. R., Barman, T., et al. 2015, Science, 350, 64
Macintosh, B. A., Graham, J. R., Ingraham, P., et al. 2014, Proceedings of the National Academy of Science, 111, 12661
Macintosh, B. A., Graham, J. R., Palmer, D. W., et al. 2008, in Proc. SPIE, Vol. 7015, Adaptive Optics Systems, 701518
Maire, A.-L., Bonnefoy, M., Ginski, C., et al. 2016, A&A, 587, A56
Marino, S., Casassus, S., Perez, S., et al. 2015, ApJ, 813, 76
Marley, M. S., Saumon, D., Cushing, M., et al. 2012, ApJ, 754, 135
Marois, C., Lafrenière, D., Doyon, R., Macintosh, B., & Nadeau, D. 2006, The Astrophysical Journal, 641, 556
Marois, C., Macintosh, B., Barman, T., et al. 2008, Science, 322, 1348
Marois, C., Macintosh, B., & Véran, J.-P. 2010a, in Adaptive Optics Systems II, Vol. 7736, 77361J–77361J–12
Marois, C., Zuckerman, B., Konopacky, Q. M., Macintosh, B., & Barman, T. 2010b, Nature, 468, 1080
Martín, E. L. & Zapatero Osorio, M. R. 2003, ApJ, 593, L113
Martinache, F., Guyon, O., Jovanovic, N., et al. 2014, PASP, 126, 565
Martinez, P., Boccaletti, A., Kasper, M., Baudoz, P., & Cavarroc, C. 2007, A&A, 474, 671
Martinez, P., Kasper, M., Costille, A., et al. 2013, A&A, 554, A41
Martinez, P., Loose, C., Aller Carpentier, E., & Kasper, M. 2012, A&A, 541, A136
Masuda, K. 2014, ApJ, 783, 53
Mawet, D., Pueyo, L., Lawson, P., et al. 2012, in Proc. SPIE, Vol. 8442, Space Telescopes and Instrumentation 2012: Optical, Infrared, and Millimeter Wave, 844204
Mawet, D., Serabyn, E., Liewer, K., et al. 2010, ApJ, 709, 53
Mayer, L., Quinn, T., Wadsley, J., & Stadel, J. 2002, Science, 298, 1756
Mayer, L., Wadsley, J., Quinn, T., & Stadel, J. 2005, MNRAS, 363, 641
Mayor, M. & Queloz, D. 1995, Nature, 378, 355
Meheut, H., Meliani, Z., Varniere, P., & Benz, W. 2012, A&A, 545, A134
Merín, B., Brown, J. M., Oliveira, I., et al. 2010, ApJ, 718, 1200
Miller, K., Males, J. R., Guyon, O., et al. 2018, in Proc. SPIE, Vol. 10703, Adaptive Optics Systems VI, 10703 – 10703 – 17
Milli, J., Mawet, D., Mouillet, D., Kasper, M., & Girard, J. H. 2016, in Astrophysics and Space Science Library, Vol. 439, Astronomy at High Angular Resolution, ed. H. M. J. Boffin, G. Hussain, J.-P. Berger, & L. Schmidtobreick, 17
Milli, J., Mouillet, D., Lagrange, A.-M., et al. 2012, A&A, 545, A111
Miskiewicz, M. N. & Escuti, M. J. 2014, Opt. Express, 22, 12691
Molnár, L., Plachy, E., Juhász, Á. L., & Rimoldini, L. 2018, ArXiv e-prints [arXiv:1805.11395]
Monnier, J. D., Kraus, S., Buscher, D., et al. 2014, in Proc. SPIE, Vol. 9146, Optical and Infrared Interferometry IV, 914610
Mordasini, C., Alibert, Y., Benz, W., & Naef, D. 2009, A&A, 501, 1161
Morzinski, K. M., Close, L. M., Males, J. R., et al. 2014, in Proc. SPIE, Vol. 9148, Adaptive Optics Systems IV, 914804

Mosleh, A., Langlois, J. M. P., & Green, P. 2014, in Computer Vision – ECCV 2014, ed. D. Fleet, T. Pajdla, B. Schiele, & T. Tuytelaars (Cham: Springer International Publishing), 247–262

Mulders, G. D., Min, M., Dominik, C., Debes, J. H., & Schneider, G. 2013, A&A, 549, A112

Muro-Arena, G. A., Dominik, C., Waters, L. B. F. M., et al. 2018, A&A, 614, A24

Muto, T., Grady, C. A., Hashimoto, J., et al. 2012, ApJ, 748, L22

N'Diaye, M., Dohlen, K., Caillat, A., et al. 2014, Proc. SPIE, 9148, 91485H

N'Diaye, M., Dohlen, K., Tisserand, S., et al. 2011, in Proc. SPIE, Vol. 8169, Optical Fabrication, Testing, and Metrology IV, 81690G

N'Diaye, M., Martinache, F., Jovanovic, N., et al. 2018, A&A, 610, A18

N'Diaye, M., Vigan, A., Dohlen, K., et al. 2016, A&A, 592, A79

Neil, M. A. A., Booth, M. J., & Wilson, T. 2000, J. Opt. Soc. Am. A, 17, 1098

Nielsen, E. L., Close, L. M., Biller, B. A., Masciadri, E., & Lenzen, R. 2008, ApJ, 674, 466

Noll, R. J. 1976, J. Opt. Soc. Am., 66, 207

Otten, G. P. P. L. 2016, Suppressing a Sea of Starlight : enabling technology for the direct imaging of exoplanets (PhD thesis) (Leiden University)

Otten, G. P. P. L., Snik, F., Kenworthy, M. A., et al. 2017, ApJ, 834, 175

Otten, G. P. P. L., Snik, F., Kenworthy, M. A., Miskiewicz, M. N., & Escuti, M. J. 2014a, Opt. Express, 22, 30287

Otten, G. P. P. L., Snik, F., Kenworthy, M. A., et al. 2014b, in Proc. SPIE, Vol. 9151, Advances in Optical and Mechanical Technologies for Telescopes and Instrumentation, 9151 – 9151 – 10

Paul, B., Sauvage, J.-F., Mugnier, L. M., et al. 2014a, in Proc. SPIE, Vol. 9147, Ground-based and Airborne Instrumentation for Astronomy V, 91479O

Paul, B., Sauvage, J.-F., Mugnier, L. M., et al. 2014b, A&A, 572, A32

Perrin, M. D., Duchene, G., Millar-Blanchaer, M., et al. 2015, ApJ, 799, 182

Perrot, C., Boccaletti, A., Pantin, E., et al. 2016, A&A, 590, L7

Petigura, E. A., Howard, A. W., & Marcy, G. W. 2013, Proceedings of the National Academy of Science, 110, 19273

Petit, C., Sauvage, J.-F., Fusco, T., et al. 2016, Journal of Astronomical Telescopes, Instruments, and Systems, 2, 2

Pinilla, P., de Boer, J., Benisty, M., et al. 2015, A&A, 584, L4

Pinte, C., Harries, T. J., Min, M., et al. 2009, A&A, 498, 967

Pollack, J. B., Hubickyj, O., Bodenheimer, P., et al. 1996, Icarus, 124, 62

Polo, A., Haber, A., Pereira, S. F., Verhaegen, M., & Urbach, H. P. 2013, Journal of the European Optical Society, 8

Por, E. H. 2017, in Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, Vol. 10400, Techniques and Instrumentation for Detection of Exoplanets VIII, 104000V

Por, E. H. & Haffert, S. Y. 2018, ArXiv e-prints [arXiv:1803.10691]

Por, E. H. & Keller, C. U. 2016, in Proc. SPIE, Vol. 9909, Adaptive Optics Systems V, 990959

Qi, C., Ho, P. T. P., Wilner, D. J., et al. 2004, ApJ, 616, L11

Quanz, S. P., Amara, A., Meyer, M. R., et al. 2015, ApJ, 807, 64

Quanz, S. P., Amara, A., Meyer, M. R., et al. 2013a, ApJ, 766, L1
Quanz, S. P., Avenhaus, H., Buenzli, E., et al. 2013b, ApJ, 766, L2
Quanz, S. P., Meyer, M. R., Kenworthy, M. A., et al. 2010, ApJ, 722, L49
Rappaport, S., Levine, A., Chiang, E., et al. 2012, ApJ, 752, 1
Rice, W. K. M. & Armitage, P. J. 2003, ApJ, 598, L55
Richardson, W. H. 1972, Journal of the Optical Society of America (1917-1983), 62, 55
Ridden-Harper, A. R., Snellen, I. A. G., Keller, C. U., et al. 2016, A&A, 593, A129
Roberts, Jr., L. C., Perrin, M. D., Marchis, F., et al. 2004, in Proc. SPIE, Vol. 5490, Advancements in Adaptive Optics, ed. D. Bonaccini Calia, B. L. Ellerbroek, & R. Ragazzoni, 504–515
Roddier, F. & Roddier, C. 1997, PASP, 109, 815
Rodenhuis, M., Canovas, H., Jeffers, S., & Keller, C. 2011, in Astronomical Society of the Pacific Conference Series, Vol. 449, Astronomical Polarimetry 2008: Science from Small to Large Telescopes, ed. P. Bastien, N. Manset, D. P. Clemens, & N. St-Louis, 33
Roelfsema, R., Bazzon, A., Schmid, H. M., et al. 2016, in Proc. SPIE, Vol. 9909, Adaptive Optics Systems V, 990927
Ros, K. & Johansen, A. 2013, A&A, 552, A137
Sallum, S., Follette, K. B., Eisner, J. A., et al. 2015, Nature, 527, 342
Sauvage, J.-F., Fusco, T., Guesalaga, A., et al. 2015, in Adaptive Optics for Extremely Large Telescopes 4 – Conference Proceedings
Sauvage, J.-F., Fusco, T., Lamb, M., et al. 2016, in Proc. SPIE, Vol. 9909, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, 990916
Sauvage, J.-F., Fusco, T., LeMignant, D., et al. 2011, in Second International Conference on Adaptive Optics for Extremely Large Telescopes, 48
Sauvage, J.-F., Fusco, T., Petit, C., et al. 2010, in Adaptive Optics Systems II, Vol. 7736, 77360F–77360F–10
Sauvage, J.-F., Fusco, T., Petit, C., et al. 2014, in Adaptive Optics Systems IV, Vol. 9148, 9148 – 9148 – 10
Sauvage, J.-F., Fusco, T., Rousset, G., & Petit, C. 2007, Journal of the Optical Society of America A, 24, 2334
Schwarz, H. 2017, Spinning worlds (PhD thesis) (Leiden University)
Schwarz, H., Ginski, C., de Kok, R. J., et al. 2016a, A&A, 593, A74
Schwarz, K. R., Bergin, E. A., Cleeves, L. I., et al. 2016b, ApJ, 823, 91
Shvartzvald, Y., Yee, J. C., Calchi Novati, S., et al. 2017, ApJ, 840, L3
Smith, W. H. 1987, PASP, 99, 1344
Snellen, I. A. G., Brandl, B. R., de Kok, R. J., et al. 2014, Nature, 509, 63
Snellen, I. A. G., de Kok, R., Birkby, J. L., et al. 2015, A&A, 576, A59
Snellen, I. A. G., de Kok, R. J., de Mooij, E. J. W., & Albrecht, S. 2010, Nature, 465, 1049
Snik, F., Otten, G., Kenworthy, M., et al. 2012, in Proc. SPIE, Vol. 8450, Modern Technologies in Space- and Ground-based Telescopes and Instrumentation II, 84500M
Sokal, K. R., Deen, C. P., Mace, G. N., et al. 2018, ApJ, 853, 120
Soummer, R., Ferrari, A., Aime, C., & Jolissaint, L. 2007a, ApJ, 669, 642
Soummer, R., Pueyo, L., & Larkin, J. 2012, ApJ, 755, L28

Soummer, R., Pueyo, L., Sivaramakrishnan, A., & Vanderbei, R. J. 2007b, Opt. Express, 15, 15935
Spangenberg, D.-M., Dudley, A., Neethling, P. H., Rohwer, E. G., & Forbes, A. 2014, Opt. Express, 22, 13870
Spiegel, D. S., Burrows, A., & Milsom, J. A. 2011, ApJ, 727, 57
Stam, D. M., Hovenier, J. W., & Waters, L. B. F. M. 2004, A&A, 428, 663
Stevenson, K. B., Désert, J.-M., Line, M. R., et al. 2014, Science, 346, 838
Stolker, T., Min, M., Stam, D. M., et al. 2017, A&A, 607, A42
Strom, K. M., Strom, S. E., Edwards, S., Cabrit, S., & Skrutskie, M. F. 1989, AJ, 97, 1451
Stuik, R., Bailey, J. I., Dorval, P., et al. 2017, A&A, 607, A45
Thalmann, C., Schmid, H. M., Boccaletti, A., et al. 2008, in Proc. SPIE, Vol. 7014, Ground-based and Airborne Instrumentation for Astronomy II, 70143F
Tuthill, P., Lacour, S., Amico, P., et al. 2010, in Proc. SPIE, Vol. 7735, Ground-based and Airborne Instrumentation for Astronomy III, 77351O
van Boekel, R., Henning, T., Menu, J., et al. 2017, ApJ, 837, 132
van Holstein, R. 2016, Master's Thesis, TU Delft
van Holstein, R. G., Snik, F., Girard, J. H., et al. 2017, in Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, Vol. 10400, Techniques and Instrumentation for Detection of Exoplanets VIII, 1040015
Vigan, A., Bonnefoy, M., Ginski, C., et al. 2016a, A&A, 587, A55
Vigan, A., Postnikova, M., Caillat, A., et al. 2016b, in Proc. SPIE, Vol. 9909, Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, 99093F
Wagner, K., Apai, D., Kasper, M., & Robberto, M. 2015, ApJ, 813, L2
Wang, J. J., Graham, J. R., Pueyo, L., et al. 2016, AJ, 152, 97
Weidenschilling, S. J. & Marzari, F. 1996, Nature, 384, 619
Wilby, M. J., Keller, C. U., Haffert, S., et al. 2016a, in Proc. SPIE, Vol. 9909, Adaptive Optics Systems V, 990921
Wilby, M. J., Keller, C. U., Sauvage, J.-F., et al. 2016b, in Proc. SPIE, Vol. 9909, Adaptive Optics Systems V, 99096C
Williams, J. P. & Cieza, L. A. 2011, ARA&A, 49, 67
Winn, J. N. & Fabrycky, D. C. 2015, ARA&A, 53, 409
Wolszczan, A. & Frail, D. A. 1992, Nature, 355, 145
Wyatt, M. C. 2008, Annual Review of Astronomy and Astrophysics, 46, 339
Zurlo, A., Vigan, A., Galicher, R., et al. 2016, A&A, 587, A57

List of Abbreviations

ADI	Angular Differential Imaging
ADU	Analog-to-Digital Unit
ALMA	Atacama Large Millimeter Array
A(P)LC	Apodised (Pupil) Lyot Coronagraph
APP	Apodising Phase Plate
AU	Astronomical Unit
CCD	Charge Coupled Device
cMWS	coronagraphic Modal Wavefront Sensor
CO	Carbon Monoxide
COFFEE	COronagraphic Focal-plane wave-Front Estimation for Exoplanet detection
CRIRES	CRyogenic high-resolution InfraRed Echelle Spectrograph
DL	Diffraction-Limited
DM	Deformable Mirror
dOTF	differential Optical Transfer Function
DPI	Dual-band Polarimetric Imaging
DTTS	Differential Tip-Tilt Sensor
EFC	Electric Field Conjugation
ELT	Extremely Large Telescope
EPICS	ExoPlanet Imaging Camera and Spectrograph
ERIS	Enhanced Resolution Imager and Spectrograph
ESO	European Southern Observatory
F&F	Fast & Furious
FF-GS	Fast & Furious Gerchberg-Saxton
FFT	Fast Fourier Transform
FoV	Field of View
FP	Focal Plane
FWHM	Full Width at Half Maximum
GMC	Giant Molecular Cloud
GPI	Gemini Planet Imager
GUI	Graphical User Interface
HAM	Holographic Aperture Masking
HCI	High-Contrast Imaging
HDS	High-Dispersion Spectroscopy
HMWS	Holographic Modal Wavefront Sensor
HRS	High-Resolution Spectroscopy

HST	Hubble Space Telescope
IFS	Integral Field Spectrograph
IFU	Integral Field Unit
IRDIS	Infra-Red Dual-beam Imager and Spectrograph
IWA	Inner-Working Angle
JWST	James Webb Space Telescope
LAM	Laboratoire d'Astrophysique de Marseille
LBT	Large Binocular Telescope
LCOS-SLM	Liquid Crystal on Silicon Spatial Light Modulator
LEXI	Leiden EXoplanet Instrument
LO	Low Order
LOCI	Locally-Optimised Combination of Images
LWE	Low-Wind Effect
M_{Earth}	Earth Masses
M_{jup}	Jupiter Masses
M2	Secondary Mirror
MagAO	Magellan Adaptive Optics
METIS	Mid-infrared E-ELT Imager and Spectrograph
MITHIC	Marseille Imaging Testbed for HIgh Contrast
NACO	NAOS-CONICA: Nasmyth Adaptive Optics System (NAOS) Near-Infrared Imager and Spectrograph (CONICA)
NCP	Non-Common Path
NCPA	Non-Common Path Aberrations
NCPE	Non-Common Path Errors
NIR	Near-InfraRed
NIRC2	Near-InfraRed Camera 2
NOVA	Nederlandse Onderzoekschool Voor Astronomie
PCA	Principal Component Analysis
PFI	Planet Formation Imager
PI	Polarised Intensity
PIAA	Phase-Induced Amplitude Apodisation
PP	Pupil Plane
PPD	ProtoPlanetary Disk
PSF	Point-Spread Function
PTT	Piston-Tip-Tilt
PVE	Peak-to-Valley Error
QSS	Quasi-Static Speckles
RDI	Reference Differential Imaging
RMS	Root-Mean-Square
RT	Radiative Transfer
RV	Radial Velocity
SAM	Sparse Aperture Masking

SAXO	Sphere Adaptive optics for eXoplanet Observation
SCAR	Single-mode Complex Amplitude Retrieval coronagraph
ScExAO	Subaru coronagraphic Extreme Adaptive Optics
SDI	Simultaneous/Spectral Differential Imaging
SED	Spectral Energy Distribution
SH-WFS	Shack-Hartmann WaveFront Sensor
SLM	Spatial Light Modulator
S/N	Signal-to-Noise Ratio
SNR	Signal-to-Noise Ratio
SPHERE	Spectro-Polarimetric High-contrast Exoplanet REsearch instrument
SR	Strehl Ratio
TMT	Thirty-Meter Telescope
TTV	Transit Timing Variation
UV	Ultra-Violet
vAPP	vector Apodising Phase Plate
VLT	Very Large Telescope
WHT	William Herschel Telescope
WFS	WaveFront Sensor
XAO	eXtreme Adaptive Optics
ZELDA	Zernike sensor for Extremely Low-level Differential Aberrations
ZIMPOL	Zurich IMaging POLarimeter