Bonn

Argelander-Institut für Astronomie
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1 Einleitung

Am Argelander-Institut für Astronomie arbeiten über 100 Wissenschaftler (ab Masterarbeit) sowie Personal in Technik und Verwaltung. Die Wissenschaftler sind an nationalen und internationalen Kooperation beteiligt, insbesondere an Athena, CCAT-p, eROSITA, und Euclid. Es gibt ein umfangreiches Vorlesungsangebot für den M.Sc. in Astrophysics.

2 Personal und Ausstattung

Diese sowie weitere Angaben sind wegen des Bundesdatenschutzgesetzes unvollständig.

2.1 Personalstand

Direktoren:

Prof. Dr. N. Langer (bis September 2018), -3656; Prof. Dr. T.H. Reiprich (ab Oktober 2018), -3642

Professoren:

F. Bertoldi, F. Bigiel, N. Langer, C. Porciani, T. Reiprich, P. Schneider, T. Tauris (Aarhus University)

Wissenschaftliche Mitarbeiter:

Dr. C. Abate, D. Alkhanishvili, Dr. M. Albrecht, T. Badescu, Dr. A. Barnes, Dr. K. Basu, I. Beslic, Dr. M. Bird, Dr. M. Borzyszkowski, Dr. O. Cordes, Dr. R. Dutta-Roy, S. Ellis, Dr. T. Erben, J. Erler, E. Garaldi, Dr. M. Geffert, Dr. G. Gräfener, K. Harrington, B. Hastings, B. Hernandez Martin, S. Heydenreich, K. Hortmanns, E. Jiménez Andrade, C. Karoumpis, M. Keil, Dr. J. Kerp, A. Krause, Dr. M. Kruckow, J. Kuruvilla, L. Linke, Dr. B. Magnelli, Dr. P. Marchant Campos, Dr. O. Marggraf, Dr. N. Martinet, Dr. E. Matrozis, O. Meingart, K. Migkas, A. Mikler Celis, D. Misra, Dr. L. Moser-Fischer, Dr. S. Mühle, Dr. A. Nagarajan, Dr. R. Nakajima, Dr. F. Pacaud, J. Puschnig, M. Quast, Dr. M. Ramos Ceja, K. Rauthmann, S. Riaz, Dr. E. Romano-Diaz, Dr. R. Schaaf, A. Schootemeijer, Dr. T. Schrabback, A. Schäbe, C. Schürmann, K. Sen, Z. Shafiee, M. Shamohammadi, Dr.

P. Simon, B. Solís Castillo, Dr. M. Tewes, Dr. S. Thölken, S. Unruh, N. Weissgerber, K. Werner, O. Wertz, Dr. E. Vardoulaki, W. Xu, V. Yankelevich, C. Zhang, R. Zhao, H. Zohren

Sekretariat und Verwaltung:

S. Derdau, -3676, E. Fuhrmann, E. Kramer (Geschäftsführung), -3655, C. Stein-Schmitz, -3658

Technische Mitarbeiter:

A. Bödewig, -3654, A. Feil, U. Sarter, -5538

3 Lehrtätigkeit, Prüfungen und Gremientätigkeit

3.1 Lehrtätigkeiten

Master of Science Astrophysik

Im WS 2017/18 wurden sieben Vorlesungen und neun Seminare angeboten. Davon waren drei Vorlesungen sowie ein Seminar verpflichtend (compulsory) für alle Studierenden.

Im Sommer 2018 wurden elf Vorlesungen und neun Seminare angeboten. Davon waren zwei Vorlesungen und ein Seminar verpflichtend (compulsory) für alle Studierenden.

Im WS 2018/19 wurden sieben Vorlesungen und neun Seminare angeboten. Davon waren drei Vorlesungen sowie ein Seminar verpflichtend (compulsory) für alle Studierenden.

Für den erfolgreichen Abschluss aller Vorlesungen und Seminare muss eine Prüfungsleistung erbracht werden.

Beteiligungen an der physikalischen Ausbildung – Praktika:

S261 Optical astronomy
S262 Setting up a Radio-astronomical receiver
S263 Photometry of star clusters
S264 Radio astronomical observing course

Bachelor of Science Physik

Im WS 2017/18 wurden im Rahmen der Vorlesung „Einführung in die Astronomie“ (astro121) 174 Prüfungen abgenommen.

Im Sommer 2018 wurden im Rahmen der Vorlesung „Einführung in die Radioastronomie“ (astro123) 27 Prüfungen abgenommen.

Im Sommer 2018 wurden im Rahmen der Vorlesung „Einführung in die extragalaktische Astronomie“ (astro122) 59 Prüfungen abgenommen.

Im WS 2018/19 wurden im Rahmen der Vorlesung „Einführung in die Astronomie“ (astro121) 188 Prüfungen abgenommen.

Beteiligungen an der physikalischen Ausbildung – Vorlesung:

physics 718: Programming in Physics and Astronomy with C++

LABphysik 225: Klassische theoretische Mechanik

physics 561: Physikalisches Praktikum IV: Atome, Moleküle, Kondensierte Materie, Versuch 464 „Spektroskopie von Sternen“.

4 Akademische Abschlussarbeiten

4.1 Bachelorarbeiten

Es wurden insgesamt 9 Arbeiten abgeschlossen.

4.2 Masterarbeiten

Es wurden insgesamt 15 Masterarbeiten im Fach Astrophysik am AIfA abgeschlossen. Weitere Masterarbeiten von Studenten unseres M.Sc. in Astrophysics-Studiengangs wurden in Physik-Instituten und am MPIfR abgeschlossen.

4.3 Dissertationen

Abgeschlossen:

M. Borzyszkowski, The large-scale structure of the Universe; environmental effects and relativistic corrections

M. Kruckow, Binary star population synthesis,Progenitors of gravitational wave driven mergers

P. Marchant Campos, The impact of tides and mass transfer on the evolution of metal-poor massive binary stars

E. Matrozis, Evolution of carbon-enhanced metal-poor stars originating from mass transfer in stellar binaries

A. Nagarajan, Mass calibration of the Sunyaev-Zel'dovich effect using APEX-SZ galaxy clusters

S. Thölken, X-Ray Studies of Galaxy Clusters and Groups

5 Tagungen, Projekte am Institut und Beobachtungszeiten

5.1 Tagungen und Veranstaltungen

Euclid Consortium Meeting 2018, 11.-14.06.2018, `https://euclid2018.astro.uni-bonn.de`

6 Veröffentlichungen

6.1 In Zeitschriften und Büchern

1. Brouwer M. M., Demchenko V., Harnois-Déraps J., et al.: Studying galaxy troughs and ridges using weak gravitational lensing with the Kilo-Degree Survey. MNRAS **481** (2018), 5189

2. Banerjee S.: Stellar-mass black holes in young massive and open stellar clusters and their role in gravitational-wave generation III: dissecting black hole dynamics. MNRAS **481** (2018), 5123

3. Kruckow M. U., Tauris T. M., Langer N., Kramer M., Izzard R. G.: Progenitors of gravitational wave mergers: binary evolution with the stellar grid-based code COMBINE. MNRAS **481** (2018), 1908

4. Ceraj L., Smolčić V., Delvecchio I., et al.: The VLA-COSMOS 3 GHz Large Project: Star formation properties and radio luminosity functions of AGN with moderate-to-high radiative luminosities out to ~ 6. A&A **620** (2018), A192

5. Walter F., Riechers D., Novak M., et al.: No Evidence for Enhanced [O III] 88 μm Emission in a $z \sim 6$ Quasar Compared to Its Companion Starbursting Galaxy. ApJ **869** (2018), L22

6. Hashim M., Giocoli C., Baldi M., Bertacca D., Maartens R.: Cosmic degeneracies III: N-body simulations of interacting dark energy with non-Gaussian initial conditions. MNRAS **481** (2018), 2933

7. Suwa Y., Yoshida T., Shibata M., Umeda H., Takahashi K.: On the minimum mass of neutron stars. MNRAS **481** (2018), 3305

8. McComas D. J., Christian E. R., Schwadron N. A., et al.: Interstellar Mapping and Acceleration Probe (IMAP): A New NASA Mission. SSRv **214** (2018), 116

9. Strait V., Bradač M., Hoag A., et al.: Mass and Light of Abell 370: A Strong and Weak Lensing Analysis. ApJ **868** (2018), 129

10. Brogaard K., Christiansen S. M., Grundahl F., et al.: The blue straggler V106 in NGC 6791: a prototype progenitor of old single giants masquerading as young. MNRAS **481** (2018), 5062

11. Franco M., Elbaz D., Béthermin M., et al.: GOODS-ALMA: 1.1 mm galaxy survey. I. Source catalog and optically dark galaxies. A&A **620** (2018), A152

12. Giblin B., Heymans C., Harnois-Déraps J., et al.: KiDS-450: enhancing cosmic shear with clipping transformations. MNRAS **480** (2018), 5529

13. Harnois-Déraps J., Amon A., Choi A., et al.: Cosmological simulations for combined-probe analyses: covariance and neighbour-exclusion bias. MNRAS **481** (2018), 1337

14. Faccioli L., Pacaud F., Sauvageot J.-L., et al.: The XXL Survey. XXIV. The final detection pipeline. A&A **620** (2018), A9

15. Kalberla P. M. W., Haud U.: Properties of cold and warm H I gas phases derived from a Gaussian decomposition of HI4PI data. A&A **619** (2018), A58

16. Lennon D. J., Evans C. J., van der Marel R. P., et al.: Gaia DR2 reveals a very massive runaway star ejected from R136. A&A **619** (2018), A78

17. Farahi A., Guglielmo V., Evrard A. E., et al.: The XXL Survey: XXIII. The Mass Scale of XXL Clusters from Ensemble Spectroscopy. A&A **620** (2018), A8

18. Wertz O., Orthen B.: A dedicated source-position transformation package: pySPT. A&A **619** (2018), A117

19. Logan C. H. A., Maughan B. J., Bremer M. N., et al.: The XXL Survey: XXXIII. Chandra Constraints on the AGN Contamination of $z > 1$ XXL Galaxy Clusters. A&A **620** (2018), A18

20. Guglielmo V., Poggianti B. M., Vulcani B., et al.: The XXL Survey: XXII. The XXL-North spectrophotometric sample and galaxy stellar mass function in X-ray detected groups and clusters. A&A **620** (2018), A7

21. Circosta C., Mainieri V., Padovani P., et al.: SUPER. I. Toward an unbiased study of ionized outflows in $z \sim 2$ active galactic nuclei: survey overview and sample characterization. A&A **620** (2018), A82

22. Wright A. H., Driver S. P., Robotham A. S. G.: GAMA/G10-COSMOS/3D-HST: Evolution of the galaxy stellar mass function over 12.5 Gyr. MNRAS **480** (2018), 3491

23. Pillepich A., Reiprich T. H., Porciani C., Borm K., Merloni A.: Forecasts on dark energy from the X-ray cluster survey with eROSITA: constraints from counts and clustering. MNRAS **481** (2018), 613

24. Mantz A. B., Abdulla Z., Allen S. W., et al.: The XXL Survey. XVII. X-ray and Sunyaev-Zel'dovich properties of the redshift 2.0 galaxy cluster XLSSC 122. A&A **620** (2018), A2

25. Thölken S., Reiprich T. H., Sommer M. W., Ota N.: Discovery of large scale shock fronts correlated with the radio halo and radio relic in the A2163 galaxy cluster. A&A **619** (2018), A68

26. Castro N., Oey M. S., Fossati L., Langer N.: The Spectroscopic Hertzsprung-Russell Diagram of Hot Massive Stars in the Small Magellanic Cloud. ApJ **868** (2018), 57

27. Horellou C., Intema H. T., Smolčić V., et al.: The XXL Survey: XXXIV. Double irony in XXL-North. A tale of two radio galaxies in a supercluster at z = 0.14. A&A **620** (2018), A19

28. Chiappetti L., Fotopoulou S., Lidman C., et al.: The XXL Survey: XXVII. The 3XLSS point source catalogue. A&A **620** (2018), A12

29. Simm T., Buchner J., Merloni A., et al.: Dramatic X-ray spectral variability of a Compton-thick type-1 QSO at $z \sim 1$. MNRAS **480** (2018), 4912

30. Xu W., Ramos-Ceja M. E., Pacaud F., Reiprich T. H., Erben T.: A new X-ray-selected sample of very extended galaxy groups from the ROSAT All-Sky Survey. A&A **619** (2018), A162

31. Efimov A. I., Lukanina L. A., Chashei I. V., Bird M. K., Pätzold M., Wexler D.: Velocity of the Inner Solar Wind from Coronal Sounding Experiments with Spacecraft. CosRe **56** (2018), 405

32. Eales S. A., Baes M., Bourne N., et al.: The causes of the red sequence, the blue cloud, the green valley, and the green mountain. MNRAS **481** (2018), 1183

33. Champagne J. B., Decarli R., Casey C. M., et al.: No Evidence for Millimeter Continuum Source Overdensities in the Environments of z $\gtrsim$ 6 Quasars. ApJ **867** (2018), 153

34. Koulouridis E., Ricci M., Giles P., et al.: The XXL Survey. XXXV. The role of cluster mass in AGN activity. A&A **620** (2018), A20

35. Jakobs A., Viola M., McCarthy I., et al.: Multiwavelength scaling relations in galaxy groups: a detailed comparison of GAMA and KiDS observations to BAHAMAS simulations. MNRAS **480** (2018), 3338

36. Fragione G., Pavlík V., Banerjee S.: Neutron stars and millisecond pulsars in star clusters: implications for the diffuse gamma-radiation from the Galactic Centre. MNRAS **480** (2018), 4955

37. Abate C., Pols O. R., Stancliffe R. J.: Understanding the orbital periods of CEMP-s stars. A&A **620** (2018), A63

38. Koulouridis E., Faccioli L., Le Brun A. M. C., et al.: The XXL Survey. XIX. A realistic population of simulated X-ray AGN: Comparison of models with observations. A&A **620** (2018), A4

39. Adami C., Giles P., Koulouridis E., et al.: The XXL Survey. XX. The 365 cluster catalogue. A&A **620** (2018), A5

40. Ricci M., Benoist C., Maurogordato S., et al.: The XXL Survey. XXVIII. Galaxy luminosity functions of the XXL-N clusters. A&A **620** (2018), A13

41. Pacaud F., Pierre M., Melin J.-B., et al.: The XXL Survey. XXV. Cosmological analysis of the C1 cluster number counts. A&A **620** (2018), A10

42. Plionis M., Koutoulidis L., Koulouridis E., et al.: The XXL Survey. XXXII. Spatial clustering of the XXL-S AGN. A&A **620** (2018), A17

43. Guglielmo V., Poggianti B. M., Vulcani B., et al.: The XXL Survey: XXX. Characterisation of the XLSSsC N01 supercluster and analysis of the galaxy stellar populations. A&A **620** (2018), A15

44. Marulli F., Veropalumbo A., Sereno M., et al.: The XXL Survey. XVI. The clustering of X-ray selected galaxy clusters at z 0.3. A&A **620** (2018), A1

45. Fichtner H., Scherer K., Lazar M., Fahr H. J., Vörös Z.: Entropy of plasmas described with regularized κ distributions. PhRvE **98** (2018), 053205

46. Wang L., Norberg P., Brough S., et al.: Galaxy and Mass Assembly (GAMA): The environmental dependence of the galaxy main sequence. A&A **618** (2018), A1

47. Wang J., Zheng Z., D'Souza R., et al.: The prevalence of type III disc breaks in H I-rich and low-spin galaxies. MNRAS **479** (2018), 4292

48. Bodensteiner J., Baade D., Greiner J., Langer N.: Infrared nebulae around bright massive stars as indicators for binary interactions. A&A **618** (2018), A110

49. Schneider F. R. N., Ramírez-Agudelo O. H., Tramper F., et al.: The VLT-FLAMES Tarantula Survey. XXIX. Massive star formation in the local 30 Doradus starburst. A&A **618** (2018), A73

50. Wertz O., Orthen B., Schneider P.: Ambiguities in gravitational lens models: impact on time delays of the source position transformation. A&A **617** (2018), A140

51. Chaikin E. A., Kaminker A. D., Yakovlev D. G.: Afterburst thermal relaxation in neutron star crusts. Ap&SS **363** (2018), 209

52. Bondi M., Zamorani G., Ciliegi P., et al.: Linear radio size evolution of μJy populations. A&A **618** (2018), L8

53. Ducourant C., Wertz O., Krone-Martins A., et al.: Gaia GraL: Gaia DR2 gravitational lens systems. II. The known multiply imaged quasars. A&A **618** (2018), A56

54. Zandanel F., Fornasa M., Prada F., Reiprich T. H., Pacaud F., Klypin A.: MultiDark clusters: galaxy cluster mock light-cones, eROSITA, and the cluster power spectrum. MNRAS **480** (2018), 987

55. Venemans B. P., Decarli R., Walter F., et al.: Dust Emission in an Accretion-rate-limited Sample of z $\gtrsim$ 6 Quasars. ApJ **866** (2018), 159

56. Koprowski M. P., Coppin K. E. K., Geach J. E., et al.: A direct calibration of thtae IRX-β relation in Lyman-break Galaxies at z = 3-5. MNRAS **479** (2018), 4355

57. Bonvin V., Chan J. H. H., Millon M., et al.: COSMOGRAIL. XVII. Time delays for the quadruply imaged quasar PG 1115+080. A&A **616** (2018), A183

58. Clerc N., Ramos-Ceja M. E., Ridl J., et al.: Synthetic simulations of the extragalactic sky seen by eROSITA. I. Pre-launch selection functions from Monte-Carlo simulations. A&A **617** (2018), A92

59. Christiaens V., Casassus S., Absil O., et al.: Characterization of low-mass companion HD 142527 B. A&A **617** (2018), A37

60. Suzuki T., Chiba S., Yoshida T., Takahashi K., Umeda H.: Neutrino-nucleus reactions on ^{16}O based on new shell-model Hamiltonians. PhRvC **98** (2018), 034613

61. Leslie S. K., Schinnerer E., Groves B., Sargent M. T., Zamorani G., Lang P., Vardoulaki E.: Probing star formation and ISM properties using galaxy disk inclination. II. Testing typical FUV attenuation corrections out to z 0.7. A&A **616** (2018), A157

62. Kuruvilla J., Porciani C.: On the streaming model for redshift-space distortions. MNRAS **479** (2018), 2256

63. Chalela M., Gonzalez E. J., Makler M., García Lambas D., Pereira M. E. S., O'Mill A. L., Shan H.: Compact Groups analysis using weak gravitational lensing II: CFHT Stripe 82 data. MNRAS **479** (2018), 1170

64. Gunawardhana M. L. P., Norberg P., Zehavi I., et al.: Galaxy And Mass Assembly (GAMA): the signatures of galaxy interactions as viewed from small-scale galaxy clustering. MNRAS **479** (2018), 1433

65. Förster F., Moriya T. J., Maureira J. C., et al.: The delay of shock breakout due to circumstellar material evident in most type II supernovae. IAUS (2018), 122

66. Hirai R., Podsiadlowski P., Yamada S.: Comprehensive Study of Ejecta-companion Interaction for Core-collapse Supernovae in Massive Binaries. ApJ **864** (2018), 119

67. Tauris T. M.: Disentangling Coalescing Neutron-Star-White-Dwarf Binaries for LISA. PhRvL **121** (2018), 131105

68. Valotti A., Pierre M., Farahi A., Evrard A., Faccioli L., Sauvageot J.-L., Clerc N., Pacaud F.: The cosmological analysis of X-ray cluster surveys. IV. Testing ASpiX with template-based cosmological simulations (Corrigendum). A&A **617** (2018), C2

69. Platais I., Lennon D. J., van der Marel R. P., et al.: HST Astrometry in the 30 Doradus Region. II. Runaway Stars from New Proper Motions in the Large Magellanic Cloud. AJ **156** (2018), 98

70. Amon A., Blake C., Heymans C., et al.: KiDS+2dFLenS+GAMA: testing the cosmological model with the E_G statistic. MNRAS **479** (2018), 3422

71. Müller B., Gay D. W., Heger A., Tauris T. M., Sim S. A.: Multidimensional simulations of ultrastripped supernovae to shock breakout. MNRAS **479** (2018), 3675

72. Vacca V., Murgia M., Govoni F., et al.: Observations of a nearby filament of galaxy clusters with the Sardinia Radio Telescope. MNRAS **479** (2018), 776

73. Dvornik A., Hoekstra H., Kuijken K., et al.: Unveiling galaxy bias via the halo model, KiDS, and GAMA. MNRAS **479** (2018), 1240

74. Astropy Collaboration, Price-Whelan A. M., Sipőcz B. M., et al.: The Astropy Project: Building an Open-science Project and Status of the v2.0 Core Package. AJ **156** (2018), 123

75. Jin S., Daddi E., Liu D., et al.: "Super-deblended" Dust Emission in Galaxies. II. Far-IR to (Sub)millimeter Photometry and High-redshift Galaxy Candidates in the Full COSMOS Field. ApJ **864** (2018), 56

76. Pingel N. M., Pisano D. J., Heald G., et al.: A GBT Survey of the HALOGAS Galaxies and Their Environments. I. Revealing the Full Extent of H I around NGC 891, NGC 925, NGC 4414, and NGC 4565. ApJ **865** (2018), 36

77. Geffert M.: Hilmar Duerbeck am Observatorium Hoher List (1971-1985). AcHA **64** (2018), 95

78. Paterno-Mahler R., Sharon K., Coe D., et al.: RELICS: A Strong Lens Model for SPT-CLJ0615-5746, a z = 0.972 Cluster. ApJ **863** (2018), 154

79. De Colle F., Kumar P., Aguilera-Dena D. R.: Radio Emission from the Cocoon of a GRB Jet: Implications for Relativistic Supernovae and Off-axis GRB Emission. ApJ **863** (2018), 32

80. Gaia Collaboration, Mignard F., Klioner S. A., et al.: Gaia Data Release 2. The celestial reference frame (Gaia-CRF2). A&A **616** (2018), A14

81. Krone-Martins A., Delchambre L., Wertz O., et al.: Gaia GraL: Gaia DR2 gravitational lens systems. I. New quadruply imaged quasar candidates around known quasars. A&A **616** (2018), L11

82. Takahashi K.: The Low Detection Rate of Pair-instability Supernovae and the Effect of the Core Carbon Fraction. ApJ **863** (2018), 153

83. Gaia Collaboration, Spoto F., Tanga P., et al.: Gaia Data Release 2. Observations of solar system objects. A&A **616** (2018), A13

84. Hernández-García L., Vietri G., Panessa F., et al.: Variable broad lines and outflow in the weak blazar PBC J2333.9-2343. MNRAS **478** (2018), 4634

85. Bilicki M., Hoekstra H., Brown M. J. I., et al.: Photometric redshifts for the Kilo-Degree Survey. Machine-learning analysis with artificial neural networks. A&A **616** (2018), A69

86. Gaia Collaboration, Katz D., Antoja T., et al.: Gaia Data Release 2. Mapping the Milky Way disc kinematics. A&A **616** (2018), A11

87. Namekata D., Iwasawa M., Nitadori K., et al.: Fortran interface layer of the framework for developing particle simulator FDPS. PASJ **70** (2018), 70

88. Gaia Collaboration, Helmi A., van Leeuwen F., et al.: Gaia Data Release 2. Kinematics of globular clusters and dwarf galaxies around the Milky Way. A&A **616** (2018), A12

89. Gaia Collaboration, Babusiaux C., van Leeuwen F., et al.: Gaia Data Release 2. Observational Hertzsprung-Russell diagrams. A&A **616** (2018), A10

90. Calistro Rivera G., Hodge J. A., Smail I., et al.: Resolving the ISM at the Peak of Cosmic Star Formation with ALMA: The Distribution of CO and Dust Continuum in $z \sim 2.5$ Submillimeter Galaxies. ApJ **863** (2018), 56

91. Gaia Collaboration, Brown A. G. A., Vallenari A., et al.: Gaia Data Release 2. Summary of the contents and survey properties. A&A **616** (2018), A1

92. Gull M., Frebel A., Cain M. G., et al.: The R-Process Alliance: Discovery of the First Metal-poor Star with a Combined r- and s-process Element Signature. ApJ **862** (2018), 174

93. Schootemeijer A., Götberg Y., de Mink S. E., Gies D., Zapartas E.: Clues about the scarcity of stripped-envelope stars from the evolutionary state of the sdO+Be binary system φ Persei. A&A **615** (2018), A30

94. Aleman I., Exter K., Ueta T., et al.: Herschel Planetary Nebula Survey (HerPlaNS). hydrogen recombination laser lines in Mz 3. MNRAS **477** (2018), 4499

95. Amon A., Heymans C., Klaes D., et al.: KiDS-i-800: comparing weak gravitational lensing measurements from same-sky surveys. MNRAS **477** (2018), 4285

96. Yankelevich V., Pilipenko S. V.: Towards accurate rescaling of a halo mass function. moas **27** (2018), 150

97. Nagarajan A., Pacaud F., Sommer M., et al.: Weak-lensing mass calibration of the Sunyaev-Zel'dovich effect using APEX-SZ galaxy clusters. MNRAS (2018), 1811

98. Jiménez-Andrade E. F., Magnelli B., Karim A., et al.: Molecular gas in AzTEC/C159: a star-forming disk galaxy 1.3 Gyr after the Big Bang. A&A **615** (2018), A25

99. Schneider F. R. N., Sana H., Evans C. J., et al.: Response to Comment on "An excess of massive stars in the local 30 Doradus starburst". Sci **361** (2018), aat7032

100. Willis J. P., Ramos-Ceja M. E., Muzzin A., Pacaud F., Yee H. K. C., Wilson G.: X-ray versus infrared selection of distant galaxy clusters: a case study using the XMM-LSS and SpARCS cluster samples. MNRAS **477** (2018), 5517

101. Dufton P. L., Thompson A., Crowther P. A., et al.: The VLT-FLAMES Tarantula Survey. XXVIII. Nitrogen abundances for apparently single dwarf and giant B-type stars with small projected rotational velocities. A&A **615** (2018), A101

102. Henkel C., Mühle S., Bendo G., et al.: Molecular line emission in NGC 4945, imaged with ALMA. A&A **615** (2018), A155

103. Koyama K., Umeh O., Maartens R., Bertacca D.: The observed galaxy bispectrum from single-field inflation in the squeezed limit. JCAP **2018** (2018), 050

104. Schaffenroth V., Geier S., Heber U., Gerber R., Schneider D., Ziegerer E., Cordes O.: The MUCHFUSS photometric campaign. A&A **614** (2018), A77

105. Grassitelli L., Langer N., Grin N. J., Mackey J., Bestenlehner J. M., Gräfener G.: Subsonic structure and optically thick winds from Wolf-Rayet stars. A&A **614** (2018), A86

106. Er X., Hoekstra H., Schrabback T., et al.: Calibration of colour gradient bias in shear measurement using HST/CANDELS data. MNRAS **476** (2018), 5645

107. Bertacca D., Raccanelli A., Bartolo N., Matarrese S.: Cosmological perturbation effects on gravitational-wave luminosity distance estimates. PDU **20** (2018), 32

108. Niemiec A., Jullo E., Montero-Dorta A. D., et al.: Probing galaxy assembly bias with LRG weak lensing observations. MNRAS **477** (2018), L1

109. Valotti A., Pierre M., Farahi A., Evrard A., Faccioli L., Sauvageot J.-L., Clerc N., Pacaud F.: The cosmological analysis of X-ray cluster surveys. IV. Testing ASpiX with template-based cosmological simulations. A&A **614** (2018), A72

110. Sarron F., Martinet N., Durret F., Adami C.: Evolution of the cluster optical galaxy luminosity function in the CFHTLS: breaking the degeneracy between mass and redshift. A&A **613** (2018), A67

111. Basu A., Mao S. A., Fletcher A., Kanekar N., Shukurov A., Schnitzeler D., Vacca V., Junklewitz H.: Statistical properties of Faraday rotation measure in external galaxies - I. Intervening disc galaxies. MNRAS **477** (2018), 2528

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