Bonn

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0 Allgemeines

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

1 Personal und Ausstattung

Diese sowie weitere Angaben sind wegen des Bundesdatenschutzgesetzes unvollständig.

1.1 Personalstand

Direktoren und Professoren: 6

Direktoren: 1

T. Reiprich, N. Langer (stellvertr. Direktor)

Professoren: 6

F. Bertoldi, F. Bigiel, N. Langer, C. Porciani, T. Reiprich, P. Schneider

Wissenschaftliche Mitarbeiter: 84

D. Aguilera-Dena, D. Alkhanishvili, T. Badescu, Dr. A. Barnes, Dr. K. Basu, I. Beslic, Dr. M. Bird, P. Burger, E. Chaikin, M. Charmetant, D. Chatzigiannakis, Dr. O. Cordes, H. El Kilani, Y. El Khashab, S. Ellis, Dr. T. Erben, C. Erciyes, J. Erler, Y. Fichtner, Dr. E. Garaldi, Dr. M. Geffert, Dr. G. Gräfener, Dr. L. Grassitelli, N. Grin, K. Harrington, B. Hastings, B. Hernandez Martin, S. Heydenreich, K. Hortmanns, E. Jiménez Andrade, M. Kara, C. Karoumpis, M. Keil, Dr. J. Kerp, F. Kleinebreil, S. Koushik, Dr. J. Kuruvilla, L. Linke, Dr. B. Magnelli, Dr. O. Marggraf, Dr. Sandra Martin, A. Michels, K. Migkas, A. Mikler Celis, Z. Modak, Dr. L. Moser-Fischer, Dr. S. Mühle, V. Muralidhara, Dr. A. Nagarajan, Dr. R. Nakajima, L. Nemani, Dr. P. Neunteufel, N. Nguyen, Dr. F. Pacaud, S. Park, R. Pinto, Dr. J. Puschnig, M. Quast, S. Raihan Mohd, Dr. M. Ramos Ceja, K. Rauthmann, Dr. E. Romano-Diaz, D. Scognamiglio, Dr. R. Schaaf, A. Schäbe, A. Schootemeijer, Dr. T. Schrabback, C. Schürmann, K. Sen, Z. Shafiee, D. Sharma, Dr. P. Simon,

B. Solís Castillo, Dr. M. Tewes, S. Unruh, C. Wang, N. Weissgerber, K. Werner, Dr. E. Vardoulaki, C. Vyas, Dr. V. Yankelevich, C. Zhang, R. Zhao, H. Zohren

Sekretariat und Verwaltung: 3

S. Derdau, E. Kramer (Geschäftsführung), C. Stein-Schmitz

Technische Mitarbeiter: 3

A. Bödewig, A. Feil, U. Sarter

2 Wissenschaftliche Arbeiten

Siehe Abschnitt 4.

3 Akademische Abschlussarbeiten

3.1 Bachelorarbeiten

Abgeschlossen: 9

3.2 Masterarbeiten

Abgeschlossen: 2 2

3.3 Dissertationen

Abgeschlossen: 7

E. Geraldi, From galaxies to the cosmic web
J. Kuruvilla, Modelling redshift-space distortion effects on spatial clustering and velocity statistics
S. Martin, Can the halo model describe 2nd-and 3rd-order correlation functions of gravitational lensing constantly?
A. Schootemeijer, The evolution of massive stars in the Small Magellanic Cloud
A. Tudorica, Weak lensing magnification in spARCS
K. Werner, Halo Bias Renormalisation
V. Yankelevich, Cosmology with the galaxy bispectrum

3.4 Habilitationen

Abgeschlossen: 0

4 Veröffentlichungen

4.1 In referierten Zeitschriften (143)

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2. Shanahan R., Lemmer S. J., Stil J. M., et al.: Strong Excess Faraday Rotation on the Inside of the Sagittarius Spiral Arm. ApJL **887** (2019), L7

3. Liu D., Schinnerer E., Groves B., et al.: Automated Mining of the ALMA Archive in the COSMOS Field (A^3COSMOS). II. Cold Molecular Gas Evolution out to Redshift 6. ApJ **887** (2019), 235

4. Kreckel K., Ho I.-T., Blanc G. A., et al.: Mapping Metallicity Variations across Nearby Galaxy Disks. ApJ **887** (2019), 80

5. Schinnerer E., Hughes A., Leroy A., et al.: The Gas–Star Formation Cycle in Nearby Star-forming Galaxies. I. Assessment of Multi-scale Variations. ApJ **887** (2019), 49

6. Wang R., Shao Y., Carilli C. L., et al.: Resolving the Interstellar Medium in the Nuclear Region of Two z = 5.78 Quasar Host Galaxies with ALMA. ApJ **887** (2019), 40

7. Uzgil B. D., Carilli C., Lidz A., et al.: The ALMA Spectroscopic Survey in the HUDF: Constraining Cumulative CO Emission at $1 < z < 4$ with Power Spectrum Analysis of ASPECS LP Data from 84 to 115 GHz. ApJ **887** (2019), 37

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12. Hernández-García L., Panessa F., Bassani L., et al.: A young and obscured AGN embedded in the giant radio galaxy Mrk 1498. MNRAS **489** (2019), 4049

13. Bell C. P. M., Cioni M.-R. L., Wright A. H., et al.: The intrinsic reddening of the Magellanic Clouds as traced by background galaxies - I. The bar and outskirts of the Small Magellanic Cloud. MNRAS **489** (2019), 3200

14. An F. X., Simpson J. M., Smail I., et al.: Multi-wavelength Properties of Radio- and Machine-learning-identified Counterparts to Submillimeter Sources in S2COSMOS. ApJ **886** (2019), 48

15. Ho I.-T., Kreckel K., Meidt S. E., et al.: Mapping Electron Temperature Variations across a Spiral Arm in NGC 1672. ApJL **885** (2019), L31

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17. Euclid Collaboration, Barnett R., Warren S. J., et al.: Euclid preparation. V. Predicted yield of redshift $7 < z < 9$ quasars from the wide survey. A&A **631** (2019), A85

18. Marasco A., Fraternali F., Heald G., et al.: HALOGAS: the properties of extraplanar HI in disc galaxies. A&A **631** (2019), A50

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21. Sormani M. C., Treß R. G., Glover S. C. O., et al.: The geometry of the gas surrounding the Central Molecular Zone: on the origin of localized molecular clouds with extreme velocity dispersions. MNRAS **488** (2019), 4663

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58. Aalto S., Muller S., König S., et al.: The hidden heart of the luminous infrared galaxy IC 860. I. A molecular inflow feeding opaque, extreme nuclear activity. A&A **627** (2019), A147

59. Vardoulaki E., Jiménez Andrade E. F., Karim A., et al.: A closer look at the deep radio sky: Multi-component radio sources at 3 GHz VLA-COSMOS. A&A **627** (2019), A142

60. Kalberla P. M. W., Haud U.: Turbulent power distribution in the local interstellar medium. A&A **627** (2019), A112

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5 Lehrtätigkeit, Prüfungen und Gremientätigkeit

5.1 Lehrtätigkeiten

Master of Science Astrophysik:
Im WS 18/19 wurden sieben Vorlesungen und neun Seminare angeboten. Davon waren drei Vorlesungen sowie ein Seminar verpflichtend (compulsory) für alle Studierenden.

Im Sommer 19 wurden elf Vorlesungen und neun Seminare angeboten. Davon waren zwei Vorlesungen und ein Seminar verpflichtend (compulsory) für alle Studierenden.

Im WS19/20 wurden sieben Vorlesungen und neun Seminare angeboten. Davon waren drei Vorlesungen sowie ein Seminar verpflichtend (compulsory) für alle Studierenden.

Bachelor of Science Physik:
Im WS 18/19 wurden im Rahmen der Vorlesung "Einführung in die Astronomie" (astro121) 188 Prüfungen abgenommen.

Im Sommer 2019 wurden im Rahmen der Vorlesung "Einführung in die Radioastronomie" (astro123) 57 Prüfungen abgenommen.

Im Sommer 2019 wurden im Rahmen der Vorlesung "Einführung in die extragalaktische Astronomie" (astro122) 78 Prüfungen abgenommen.

Im WS 19/20 wurden im Rahmen der Vorlesung "Einführung in die Astronomie" (astro121) 192 Prüfungen abgenommen

Beteiligungen in der physikalischen Ausbildung:
Master of Science Astrophysik:
Praktika:
S261 Optical astronomy

S262 Setting up a radio astronomical receiver/ setting up an radio interferometer

S263 Photometry of star clusters

S264 Radio astronomical observing course

Bachelor of Science Physik:
Vorlesung:
physik131: "EDV"

physik320: Klassische Theoretische Physik II (Elektrodynamik)

LABphysik225: Klassische Theoretische Mechanik

Thomas Reiprich