

# Hamburg

## Hamburger Sternwarte

Gojenbergsweg 112, 21029 Hamburg sternwarte@uni-hamburg.de,  
www.sternwarte.uni-hamburg.de

### 0 Allgemeines

Die 1833 in der Nähe des Hamburger Hafens gegründete Sternwarte wurde 1912 auf den Gojenberg im östlich vom Hamburger Zentrum gelegenen Bergedorf verlegt (B: 53.4806, L: 10.2408 Grad). 1968 wurde die Sternwarte Teil des Fachbereichs Physik der Universität Hamburg. Hier befinden sich die Lehrstühle und Arbeitsgruppen im Bereich der Astrophysik. Diese forschen schwerpunktmäßig zu den Themen Extragalaktische Astrophysik und Kosmologie, Interstellares Medium und Galaxien, Kompakte Objekte und Hochenergieereignisse, Sterne und Exoplaneten sowie Geschichte der Naturwissenschaften. Schülerinnen und Schülern werden astronomische Inhalte in der Astronomiewerkstatt vermittelt. 2024 nahmen insgesamt 950 Schülerinnen und Schüler an dem Projekt teil, das in Kooperation mit der Behörde für Schule und Berufsbildung der Freien und Hansestadt Hamburg durchgeführt wird. Neben dem Kerngeschäft der Forschung und Lehre bietet die Hamburger Sternwarte auch verschiedene Möglichkeiten der öffentlichen Bildung. 2024 wurden sie von annähernd 26 000 Gästen genutzt. In Zusammenarbeit mit dem Förderverein werden regelmäßig öffentliche Rundgänge, Teleskopabende und Vortragsabende organisiert. Hinzu kommen Sonderveranstaltungen und Sondergruppenführungen. Besonderer Beliebtheit erfreute sich 2024 bereits im zweiten Jahr das Sternstunden Festival mit buntem musikalischem, astronomischem und kulinarischem Programm, das gemeinsam mit der Unimusik der Universität Hamburg veranstaltet wurde. Verschiedene auf der Sternwarte vorhandene historische Instrumente sowie ein kleines Radioteleskop bieten für öffentliche Veranstaltungen sehr gute Voraussetzungen. Aus personellen Gründen kann die rege Nachfrage der Öffentlichkeit nach Bildungsangeboten und Veranstaltungen zu astronomischen Themen allerdings nur auf ehrenamtlicher Basis und daher in begrenztem Maße bedient werden. Die Hamburger Sternwarte mit ihren historischen Instrumenten und neobarocken Kuppelbauten (gebaut 1906-1912) wurde 2008 als Denkmal von nationaler Bedeutung eingestuft. Eine bereits zweite Bewerbung der Freien und Hansestadt Hamburg um einen Platz der Hamburger Sternwarte auf der bundesweiten Kandidatenliste für eine UNESCO-Welterbe-Nominierung scheiterte im Dezember 2023 allerdings abermals.

### 1 Personal und Ausstattung

#### 1.1 Personalstand

*Direktoren und Professoren: 7*

Direktoren und Profesoren: Prof. Dr. Robi Banerjee (Geschäftsführender Direktor); Mitglied Exzellenz-Cluster Quantum-Universe

Prof. Dr. Marcus Brüggen; Mitglied Exzellenz-Cluster Quantum-Universe  
 Prof. Dr. Peter Hauschildt Prof. Dr. Thomas Kupfer Prof. Dr. Jochen Liske; Mitglied Exzellenz-Cluster Quantum-Universe, Vertreter Deutschlands im wissenschaftlich-technischen Beirat der ESO  
 Prof. Dr. Luisa Lucie-Smith (ab 18.11.) Prof. Dr. Stephan Rosswog; Mitglied Exzellenz-Cluster Quantum-Universe  
 Prof. Dr. Günther Wiedemann (bis 30.09.)

*Wissenschaftliche Mitarbeiter: 27*

Wissenschaftliche Mitarbeiter: Dr. Sriyasriti Acharya Dr. Ricard Aguilera Miret Dr. Bhaskar Biswas Dr. Alexander Brown Dr. Diego Nicolas Calderón Espinoza Dr. Sarah Casura Dr. Jan-Erik Christian Dr. Henrik Edler Dr. Gabriella di Gennaro Dr. José Nicolás González Pérez Dr. Philipp Grete Dr. Francesco Guarneri Dr. Volker Heesen Dr. Mercedes Stephania Hernandez Padilla Dr. Marco Mittag Dr. Duy Hoang Ngoc Dr. Pia Jakobus Dr. David Rafferty Dr. Jan Robrade Dr. Maria Elidaiana da Silva Pereira Dr. Jan-Torge Schindler; Junior Gruppenleiter Dr. Tobias Schmidt Dr. Wolfram Schmidt Dr. Torben Schmirander Dr. Christian Schneider Dr. Andreas Schweitzer Dr. Rainer Wichmann

*Doktoranden: 23*

Doktoranden: Raghav Arora Nicolas Baron Corey Bradshaw Alexander Brown Deepali Deepali Vanesa Díaz Martin Fournier Lovorka Gajović Radha Gharapurkar Victor Gustafsson Giulia Lusetti Souvrat Rao Carolina Angélica Ortiz Rodriguez Antonio Scaffoni Simon Selg Marco Simonte David Smolinski Paulo Solar Angelina Spasic Eric Stringer Sabarish Venkataramani Tobias Vičánek Martínez Weitian Yu

*Bachelor- und Masterstudenten: 21*

*Sekretariat, Verwaltung und Bibliothek: 3*

*Technische Mitarbeiter: 11*

## 1.2 Instrumente und Rechenanlagen

1.2 Instrumente und Rechenanlagen Kleines Radioteleskop KRT3; LOFAR-Station Nordstedt, Oskar-Lühning-Teleskop; TIGRE-Teleskop (in Guanajuato, Mexiko)

1.3 Gebaude und Bibliothek Hauptdienstgebäude mit Bibliothek und KRT3 Direktorenvilla Großer Refraktor Äqatorial Laborgebäude Kleines Beamtenwohnhaus Großes Beamtenwohnhaus Sonnenbau Oskar-Lühning-Teleskop 1-m-Spiegel Lippert Astrograph Salvador Spiegel Feinmechanische Werkstatt

## 2 Wissenschaftliche Arbeiten

### 3 Akademische Abschlussarbeiten

#### 3.1 Bachelorarbeiten

*Abgeschlossen: 5*

#### 3.2 Masterarbeiten

*Abgeschlossen: 6*

#### 3.3 Dissertationen

*Abgeschlossen: 4*

Simonte, Marco: Giant radio galaxies in the LOFAR deep fields: : old and lonely? 2024

Rao, Suvrat: Applications of Test Masses in Uniform Circular Motion to Detect Millihertz Gravitational Waves. 2024

Jones, Alexander Richard: Diffuse radio emission in merging galaxy clusters. 2024

Edler, Henrik Wilhelm: The Effect of the Galaxy Cluster Environment on Galaxies and AGN – A LOFAR Study. 2024

## 4 Veröffentlichungen

### 4.1 In referierten Zeitschriften (144)

- Aguilera-Miret, R., Palenzuela, C., Carrasco, F., Rosswog, S., Viganó, D.: Delayed jet launching in binary neutron star mergers with realistic initial magnetic fields. *PhRvD*, **110** (2024), 083014
- Anderson, C. S., McClure-Griffiths, N. M., Rudnick, L., ... , Brüggén, M. et al.: Probing the magnetized gas distribution in galaxy groups and the cosmic web with POSSUM Faraday rotation measures. *MNRAS*, **533** (2024), 4068
- Armeni, A., Stelzer, B., Frasca, A., ... , Schneider, P. C. et al.: Evidence for magnetic boundary layer accretion in RU Lup: A spectrophotometric analysis. *A&A*, **690** (2024), A225
- Arora, R., Federrath, C., Banerjee, R., Körtgen, B.: Role of magnetic fields in disc galaxies: spiral arm instability. *A&A*, **687** (2024), A276
- Balakrishnan, M., Corrales, L., Markoff, S., ... , Calderón, D., et al.: Multistructured Accretion Flow of Sgr A\*. I. Examination of a Radiatively Inefficient Accretion Flow Model. *ApJ*, **974** (2024), 98
- Balakrishnan, M., Russell, C. M. P., Corrales, L., Calderón, D. et al.: Multistructured Accretion Flow of Sgr A\*. II. Signatures of a Cool Accretion Disk in Hydrodynamic Simulations of Stellar Winds. *ApJ*, **974** (2024), 99
- Barlow, B. N., Kupfer, T., Smith, B. A., Schaffenroth, V., Parker, I.: Hot subdwarfs in close binaries observed from space. III. Reflection effect asymmetry induced by relativistic beaming. *A&A*, **686** (2024), A126
- Barnard, J., van Soelen, B., Acharya, S. et al.: The optical spectropolarimetric behaviour of a selection of high-energy blazars. *MNRAS*, **532** (2024), 1991
- Bañados, E., Momjian, E., Connor, T., ... , Schindler, J.-T. et al.: A blazar in the epoch of reionization. *NatAs.tmp*, (2024),
- Beduzzi, L., Vazza, F., Cuciti, V., Brunetti, G., Brüggén, M., Wittor, D.: Cosmological simulations of the generation of cluster-scale radio emission from turbulent re-acceleration. *A&A*, **690** (2024), A67
- Blaña, M., Burkert, A., Fellhauer, M., Calderón, D., Behrendt, M., Schartmann, M.: The Milky Way satellite galaxy Leo T: A perturbed cored dwarf. *A&A*, **692** (2024), A183
- Bogersberger, D., Nandra, K., Salvato, M., ... , Robrade, J. et al.: Characterisation of the X-ray point source variability in the eROSITA south ecliptic pole field. *A&A*, **687** (2024), A37
- Botteon, A., Gastaldello, F., ZuHone, J. A., Balboni, M., Bartalucci, I., Brunetti, G., Bonafede, A., Brüggén, M., Shimwell, T. W., van Weeren, R. J.: A radio bubble shredded by gas sloshing?. *MNRAS*, **527** (2024), 919
- Boyde, B., Wood, A., Dorrian, G., Sweijen, F., de Gasperin, F., Mevius, M., Beser, K., Themens, D.: Wavelet Analysis of Differential TEC Measurements Obtained Using LOFAR. *RaSc*, **59** (2024), e2023RS007871
- Bradshaw, C. W., Dorsch, M., Kupfer, T., Barlow, B. N., Heber, U., Bauer, E. B., Bildsten, L., van Roestel, J.: OGLE-BLAP-009 - a case study for the properties and evolution of blue large-amplitude pulsators. *MNRAS*, **527** (2024), 10239
- Brandenburg, A., Neronov, A., Vazza, F.: Resistively controlled primordial magnetic turbulence decay. *A&A*, **687** (2024), A186

- Bulbul, E., Liu, A., Kluge, M., ... , Böckmann, K., Brüggen, M., et al.: The SRG/eROSITA All-Sky Survey. The first catalog of galaxy clusters and groups in the Western Galactic Hemisphere. *A&A*, **685** (2024), A106
- Bulbul, E., Zhang, X., Kluge, M., Brüggen, M., et al.: The galaxy group merger origin of the Cloverleaf odd radio circle system. *A&A*, **685** (2024), L2
- Calderón, D., Pejcha, O., Metzger, B. D., Duffell, P. C.: The effect of relativistic precession on light curves of tidal disruption events. *MNRAS*, **528** (2024), 2568
- Casas, S., Lesgourgues, J., Schöneberg, N., Sabarish, V. M., et al.: Euclid: Validation of the MontePython forecasting tools. *A&A*, **682** (2024), A90
- Casavecchia, B., Banda-Barragán, W. E., Brüggen, M., Brighenti, F., Scannapieco, E.: The imprint of magnetic fields on absorption spectra from circumgalactic wind-cloud systems. *A&A*, **689** (2024), A127
- Casura, S., Ilić, D., Targaczewski, J., Rakić, N., Liske, J.: Exploring mass measurements of supermassive black holes in AGN using GAMA photometry and spectroscopy. *MNRAS*, **534** (2024), 182
- Christian, J.-E., Schaffner-Bielich, J., Rosswog, S.: Which first order phase transitions to quark matter are possible in neutron stars?. *PhRvD*, **109** (2024), 063035
- Cortés-Contreras, M., Caballero, J. A., Montes, D., ... Schweitzer, A., Seifert, W.: CARMENES input catalogue of M dwarfs: VIII. Kinematics in the solar neighbourhood. *A&A*, **692** (2024), A206
- Czesla, S., Lampón, M., Cont, D., ... , Schweitzer, A.: The elusive atmosphere of WASP-12 b. High-resolution transmission spectroscopy with CARMENES. *A&A*, **683** (2024), A67
- Czesla, S., Nail, F., Lavail, A., ... , Schneider, P. C., et al.: The overflowing atmosphere of WASP-121 b: High-resolution He I  $\lambda$ 10833 transmission spectroscopy with VLT/CRIRES+. *A&A*, **692** (2024), A230
- De Rubeis, E., Stuardi, C., Bonafede, A., Vazza, F., van Weeren, R. J., de Gasperin, F., & Brüggen, M.: Magnetic fields in the outskirts of PSZ2 G096.88+24.18 from a depolarization analysis of radio relics. *A&A*, **691** (2024), A23
- Decarli, R., Loiacono, F., Farina, E. P., ... , Schindler, J.-T. et al.: A quasar-galaxy merger at  $z \sim 6.2$ : Rapid host growth via the accretion of two massive satellite galaxies. *A&A*, **689** (2024), A219
- Deshmukh, K., Bauer, E. B., Kupfer, T., Dorsch, M.: Modelling the AM CVn and double detonation supernova progenitor binary system CD-30°11223. *MNRAS*, **527** (2024), 2072
- Diamond-Lowe, H., King, G. W., Youngblood, A., ... Schneider, C.: High-energy spectra of LTT 1445A and GJ 486 reveal flares and activity. *A&A*, **689** (2024), A48
- Dreizler, S., Luque, R., Ribas, I., ... , Schweitzer, A., et al.: Teegarden's Star revisited. A nearby planetary system with at least three planets. *A&A*, **684** (2024), A117
- Driessen, L. N., Pritchard, J., Murphy, T., ... , Robrade, J., et al.: The Sydney Radio Star Catalogue: Properties of radio stars at megahertz to gigahertz frequencies. *PASA*, **41** (2024), e084
- Díaz, V. B., Schleicher, D. R. G., Latif, M. A., Grete, P., Banerjee, R.: Magnetic field amplification in massive primordial halos. Influence of Lyman-Werner radiation. *A&A*, **684** (2024), A195
- Edler, H. W., Roberts, I. D., Boselli, A., de Gasperin, F., Heesen, V., Brüggen, M., Ignesti, A., & Gajović, L.: ViCTORIA project: The LOFAR view of environmental effects in Virgo cluster star-forming galaxies. *A&A*, **683** (2024), A149

- Enke, H., Tuvikene, T., Groote, D., Edelmann, H., & Heber, U.: Archives of Photographic PLates for Astronomical USE (APPLAUSE). Digitisation of astronomical plates and their integration into the International Virtual Observatory. *A&A*, **687** (2024), A165
- Erceg, A., Jelić, V., Haverkorn, M., Gajović, L., Hardcastle, M., Shimwell, T. W., Tasse, C.: Faraday tomography of LoTSS-DR2 data. III. Revealing the Local Bubble and the complex of local interstellar clouds in the high-latitude inner Galaxy. *A&A*, **688** (2024), A200
- Fan, H., Nakashima, Jun-Ichi, Engels, D., Zhang, Y., Qiu, J.-J., Feng, H.-X., Xie, J.-Y., Imai, H., Hsia, C.-H.: Systematic Search for Water Fountain Candidates Using the Databases of Circumstellar Maser Sources. *ApJS*, **270** (2024), 13
- Fischer, M. S., Kasselmann, L., Brüggen, M., Dolag, K., Kahlhoefer, F., Ragagnin, A., Robertson, A., Schmidt-Hoberg, K.: Cosmological and idealized simulations of dark matter haloes with velocity-dependent, rare and frequent self-interactions. *MNRAS*, **529** (2024), 2327
- Fournier, M., Fensch, J., Commerçon, B.: Past activity of Sgr A\* is unlikely to affect the local cosmic-ray spectrum up to the TeV regime. *A&A*, **689** (2024), A12
- Fournier, M., Grete, P., Brüggen, M., Glines, F. W., O’Shea, B. W.: The properties of magnetised cold filaments in a cool-core galaxy cluster. *A&A*, **691** (2024), A239
- Freund, S., Czesla, S., Predehl, P., Robrade, J., Salvato, M., Schneider, P. C., Starck, H., Wolf, J., Schmitt, J. H. M. M.: The SRG/eROSITA all-sky survey. Identifying the coronal content with HamStar. *A&A*, **684** (2024), A121
- Fuhrmeister, B., Schmitt, J. H. M. M., Reiners, A., Czesla, S., Béjar, V. J. S., Caballero, J., Eisloffel, J., Henning, T., Morales, J. C., Quirrenbach, A., Ribas, I., Robrade, J., Schneider, P. C., Zechmeister, M.: Coronal and chromospheric activity of Teegarden’s star. *A&A*, **691** (2024), A208
- Fuhrmeister, B., Schneider, P. C., Sperling, T., France, K., Campbell-White, J., & Eisloffel, J.: Measurement of interstellar extinction for classical T Tauri stars using far-UV H<sub>2</sub> line fluxes. *A&A*, **692** (2024), A69
- Gajović, L., Adebahr, B., Basu, A., Heesen, V., Brüggen, M., de Gasperin, F., Lara-Lopez, M. A., Oonk, J. B. R., Edler, et al.: A spatially resolved radio spectral study of the galaxy M 51. *A&A*, **689** (2024), A68
- Gatuzz, E., Wilms, J., Zainab, A., Freund, S., Schneider, P. C., Robrade, J., Czesla, S., García, J. A., Kallman, T. R.: SRG/eROSITA 3D mapping of the interstellar medium using X-ray absorption spectroscopy. *A&A*, **688** (2024), A207
- Geier, S., Heber, U., Irrgang, A., ... , Kupfer, T., et al.: A spectroscopic and kinematic survey of fast hot subdwarfs. *A&A*, **690** (2024), A368
- Ghirardini, V., Bulbul, E., Artis, E., ... , Robrade, J., et al.: The SRG/eROSITA all-sky survey: Cosmology constraints from cluster abundances in the western Galactic hemisphere. *A&A*, **689** (2024), A298
- Ginski, C., Garufi, A., Benisty, M., ... , Schmidt, T. O. B., et al.: The SPHERE view of the Chamaeleon I star-forming region. The full census of planet-forming disks with GTO and DESTINYs programs. *A&A*, **685** (2024), A52
- Goffo, E., Chaturvedi, P., Murgas, F., ... , Schweitzer, A., et al.: TOI-4438 b: a transiting mini-Neptune amenable to atmospheric characterization. *A&A*, **685** (2024), A147
- Groeneveld, C., van Weeren, R. J., Osinga, E., ... , Brüggen, M., Röttgering, H. J. A.: Characterization of the decametre sky at subarcminute resolution. *NatAs*, **8** (2024), 786
- Guo, B., Yan, F., Nortmann, L., ... , Czesla, S., et al.: Detection of Fe and Ti on the dayside of the ultrahot Jupiter MASCARA-1b with CARMENES. *A&A*, **687** (2024), A103

- Gustafsson, V., Brüggen, M., Enßlin, T.: Semi-supervised rotation measure deconvolution and its application to MeerKAT observations of galaxy clusters. *A&A*, **692** (2024), A248
- Gutiérrez Albarrán, M. L., Montes, D., Tabernero, H. M., ... , Marfil, E., et al.: The Gaia-ESO Survey: Calibrating the lithium-age relation with open clusters and associations. II. Expanded cluster sample and final membership selection. *A&A*, **685** (2024), A83
- Günther, H. M., Pasham, D., Binks, A., Czesla, S., ... , Robrade, J., Schmitt, J. H. M. M., & Schneider, P. C.: A Long-duration Superflare on the K Giant HD 251108. *ApJ*, **977** (2024), 6
- Heesen, V., Schulz, S., Brüggen, M., Edler, H. W., et al.: Nearby galaxies in the LO-FAR Two-metre Sky Survey. III. Influence of cosmic-ray transport on the radio-SFR relation. *A&A*, **682** (2024), A83
- Heesen, V., Wiegert, T., Irwin, J., Crocker, R., Kiehn, A., Li, J.-T., Wang, Q. D., Stein, M., Dettmar, R.-J., Soida, M., Henriksen, R., Gajović, L., Yang, Y., Brüggen, M.: CHANG-ES: XXXIII. A 20 kpc radio bubble in the halo of the star-forming galaxy NGC 4217. *A&A*, **691** (2024), A273
- Hejazi, N., Crossfield, I. J. M., Souto, D., ... , Marfil, E., et al.: High-resolution Elemental Abundance Measurements of Cool JWST Planet Hosts Using AutoSpecFit: An Application to the Sub-Neptune K2-18b's Host M Dwarf. *ApJ*, **973** (2024), 31
- Hidalgo, J. P., Käpylä, P. J., Schleicher, D. R. G., Ortiz-Rodríguez, C. A., & Navarrete, F. H.: Magnetohydrodynamic simulations of A-type stars: Long-term evolution of core dynamo cycles. *A&A*, **691** (2024), A326
- Hidalgo, J. P., Käpylä, P. J., Ortiz-Rodríguez, C. A., et al.: Core dynamo simulations of A-type stars. *BAAA*, **65** (2024), 56
- Holwerda, B. W., Robertson, C., Cook, K., ... , Casura, S., ... , Liske, J., Adnan, S. M. R.: The Galaxy Zoo catalogues for Galaxy And Mass Assembly (GAMA) survey. *PASA*, **41** (2024), e115
- HyeongHan, K., Cho, H., Jee, M. J., ... , Brüggen, M., et al.: Weak-lensing Analysis of the Complex Cluster Merger A746 with Subaru/Hyper Suprime-Cam. *ApJ*, **962** (2024), 100
- Igo, Z., Merloni, A., Hoang, D., ... , Brüggen, M., et al.: The LOFAR - eFEDS survey: The incidence of radio and X-ray AGN and the disk-jet connection. *A&A*, **686** (2024), A43
- Irwin, J., Cook, T., Stein, M., ... , Heesen, V., et al.: CHANG-ES. XXXII. Spatially Resolved Thermal–Nonthermal Separation from Radio Data Alone—New Probes into NGC 3044 and NGC 5775. *AJ*, **168** (2024), 138
- Irwin, J., Beck, R., Cook, T., ... , Heesen, V., et al.: CHANG-ES XXXI—A Decade of CHANG-ES: What We Have Learned from Radio Observations of Edge-on Galaxies. *Galax*, **12** (2024), 22
- Jiang, D., Onoue, M., Jiang, L., ... , Schindler, J.-T., et al.: No Redshift Evolution in the Fe II/Mg II Flux Ratios of Quasars across Cosmic Time. *ApJ*, **975** (2024), 214
- Joseph, W. M., Stelzer, B., Magaudda, E., Vičánek Martínez, T.: Simultaneous X-ray and optical variability of M dwarfs observed with eROSITA and TESS. *A&A*, **688** (2024), A49
- Keles, E., Czesla, S., Poppenhaeger, K., Hauschildt, P., et al.: The PEPSI Exoplanet Transit Survey (PETS) - V. New Na D transmission spectra indicate a quieter atmosphere on HD 189733b. *MNRAS*, **530** (2024), 4826
- Koribalski, B. S., Veronica, A., Dolag, K., ... , Brüggen, M., et al.: MeerKAT discovery of a double radio relic and odd radio circle: connecting cluster and galaxy merger shocks. *MNRAS*, **531** (2024), 3357

- Krippendorf, S., Baron Perez, N., Bulbul, E., ... , Brügger, M., et al.: The eROSITA Final Equatorial-Depth Survey (eFEDS): A machine learning approach to inferring galaxy cluster masses from eROSITA X-ray images. *A&A*, **682** (2024), A132
- Kuo, C. Y., Gao, F., Braatz, J. A., et al.: What determines the boundaries of H<sub>2</sub>O maser emission in an X-ray illuminated gas disc?. *MNRAS*, **532** (2024), 3020
- Kupfer, T., Korol, V., Littenberg, T. B., et al.: LISA Galactic Binaries with Astrometry from Gaia DR3. *ApJ*, **963** (2024), 100
- Li, J., Quan, D., Wang, J., .. , Gao, F., et al.: Tentative detection of cyanofornamide NCCONH<sub>2</sub> in space. *PASJ*, **76** (2024), 54
- Li, Q., Li, J., Zheng, S., Wang, J., Gao, F., Wu, Y.: Sulfur isotopes toward the extended envelope of Sagittarius B2 in the Galactic Center. *PASJ*, **76** (2024), 46
- Liang, F.-H., Smith, M. D., Bureau, M., Gao, F., et al: WISDOM project - XVIII. Molecular gas distributions and kinematics of three megamaser galaxies. *MNRAS*, **527** (2024), 9343
- Lin, X., Wang, F., Fan, X., ... , Schindler, J.-T., et al.: A SPectroscopic Survey of Biased Halos In the Reionization Era (ASPIRE): Broad-line AGN at  $z = 4-5$  Revealed by JWST/NIRCam WFSS. *ApJ*, **974** (2024), 147
- Liu, A., Bulbul, E., Kluge, M., ... , Brügger, M., et al.: The SRG/eROSITA All-Sky Survey. First catalog of superclusters in the western Galactic hemisphere. *A&A*, **683** (2024), A130
- Loiacono, F., Decarli, R., Mignoli, M., ... , Schindler, J.-T., et al.: A quasar-galaxy merger at  $z \sim 6.2$ : Black hole mass and quasar properties from the NIRSpc spectrum. *A&A*, **685** (2024), A121
- Loupier, M., Schröder, K.-P., Fridlund, M., Rosas-Portilla, F., Schmitt, J. H. M. M., Jack, D.: The true age of multi-planet host star HD 110067: Or: Don't be fooled by K0V-type stars. *A&A*, **691** (2024), A322
- Lovisari, L., Ettori, S., Rasia, E., ... , Simonte, M., et al.: CHEX-MATE: Characterization of the intra-cluster medium temperature distribution. *A&A*, **682** (2024), A45
- Lusetti, G., Bonafede, A., Lovisari, L., ... , Brügger, M., ... , Hoang, D. N., et al.: LOFAR detection of extended emission around a mini halo in the galaxy cluster Abell 1413. *A&A*, **683** (2024), A132
- Lusetti, G., de Gasperin, F., Cuciti, V., Brügger, M., Spinelli, C., Edler, H., Brunetti, G., van Weeren, R. J., Botteon, A., Di Gennaro, G., et al: Re-energization of AGN head-tail radio galaxies in the galaxy cluster ZwCl 0634.1+47474. *MNRAS*, **528** (2024), 141
- Maccarone, T. J., Kupfer, T., Najera Casarrubias, E., et al.: Strongly magnetized accretion in two ultracompact binary systems. *MNRAS*, **529** (2024), L28
- Mallorquín, M., Béjar, V. J. S., Lodieu, N., ... , Schweitzer, A.: Revisiting the dynamical masses of the transiting planets in the young AU Mic system: Potential AU Mic b inflation at 20 Myr. *A&A*, **689** (2024), A132
- Martins, C. J. A. P., Cooke, R., Liske, J., et al.: Cosmology and fundamental physics with the ELT-ANDES spectrograph. *ExA*, **57** (2024), 5
- Mas-Buitrago, P., González-Marcos, A., Solano, E., Passegger, V. M., ... , Schweitzer, A., Tet al.: Using autoencoders and deep transfer learning to determine the stellar parameters of 286 CARMENES M dwarfs. *A&A*, **687** (2024), A205
- McCall, H., Reiprich, T. H., Veronica, A., ... , Edler, H. W., Brügger, M., ... , de Gasperin, F., et al.: The SRG/eROSITA All-Sky Survey: View of the Virgo Cluster. *A&A*, **689** (2024), A113

- Merluzzi, P., Venturi, T., Busarello, G., Gennaro, G. D., et al.: Ram-pressure stripped radio tails detected in the dynamically active environment of the Shapley Supercluster. *MNRAS*, **533** (2024), 1394
- Mittag, M., Schmitt, J. H. M. M., Fuhrmeister, B., Robrade, J., Schröder, K.-P.: Stellar activity and differential rotation of HD 111395. *A&A*, **682** (2024), A86
- Mtchedlidze, S., Domínguez-Fernández, P., Du, X., ... , Vazza, F., et al.: Intergalactic Medium Rotation Measure of Primordial Magnetic Fields. *ApJ*, **977** (2024), 128
- Murgas, F., Pallé, E., Orell-Miquel, J., ... , Schweitzer, A., et al.: Wolf 327b: A new member of the pack of ultra-short-period super-Earths around M dwarfs. *A&A*, **684** (2024), A83
- Nakoneczny, S. J., Alonso, D., Bilicki, M., ... , Brügger, M., et al.: Cosmology from LOFAR Two-metre Sky Survey Data Release 2: Cross-correlation with the cosmic microwave background. *A&A*, **681** (2024), A105
- Nasirzadeh, M. R., Tabatabaei, F. S., Beck, R., Heesen, V., et al.: Radio–FIR correlation: A probe into cosmic ray propagation in the nearby galaxy IC 342. *A&A*, **691** (2024), A199
- Nazé, Y., Motch, C., Rauw, G., Smith, M. A., Robrade, J.: X-raying the  $\zeta$  Tau binary system. *A&A*, **688** (2024), A181
- Nishiwaki, K., Brunetti, G., Vazza, F., Gheller, C.: Efficiency of Turbulent Reacceleration by Solenoidal Turbulence and Its Application to the Origin of Radio Megahalos in Cluster Outskirts. *ApJ*, **961** (2024), 15
- Oh, S., Colless, M., Barsanti, S., ... , Casura, S., et al.: The SAMI Galaxy Survey: impact of star formation and AGN feedback processes on the ionized gas velocity dispersion. *MNRAS*, **531** (2024), 4017
- Orell-Miquel, J., Murgas, F., Pallé, E., ... , Schweitzer, A., et al.: The MOPYS project: A survey of 70 planets in search of extended He I and H atmospheres: No evidence of enhanced evaporation in young planets. *A&A*, **689** (2024), A179
- Osinga, E., van Weeren, R. J., Brunetti, G., ... , de Gasperin, F., et al.: Probing particle acceleration in Abell 2256: From 16 MHz to gamma rays. *A&A*, **688** (2024), A175
- Pasini, T., De Gasperin, F., Brügger, M., Cassano, R., Botteon, A., Brunetti, G., Edler, H. W., van Weeren, R. J., Cuciti, V., Shimwell, T., Di Gennaro, G., et al.: Ultra-low-frequency LOFAR spectral indices of cluster radio halos. *A&A*, **689** (2024), A218
- Passegger, V. M., Suárez Mascareño, A., Allart, R., ... , Müller, H. M., et al.: T The compact multi-planet system GJ 9827 revisited with ESPRESSO\*. *A&A*, **684** (2024), A22
- Pignataro, G. V., Bonafede, A., Bernardi, G., ... , Brügger, M., et al.: Abell 0399-Abell 0401 radio bridge spectral index: First multi-frequency detection. *A&A*, **685** (2024), L10
- Piras, S., Horellou, C., Conway, J. E., ... , Brügger, M., et al.: LOFAR Deep Fields: Probing the sub-mJy regime of polarized extragalactic sources in ELAIS-N1. I. The catalog. *A&A*, **687** (2024), A267
- Popesso, P., Biviano, A., Bulbul, E., ... , Liske, J., et al.: The X-ray invisible Universe. A look into the haloes undetected by eROSITA. *MNRAS*, **527** (2024), 895
- Poppenhaeger, K., Ketzer, L., Ilic, N., Magaudda, E., Robrade, J., Stelzer, B., Schmitt, J. H. M. M., Schneider, P. C.: The high-energy environment of the heavy sub-Earth GJ 367 b indicates likely complete evaporation of its atmosphere. *A&A*, **689** (2024), A188
- Rajpurohit, K., Lovisari, L., Botteon, A., ... , Brügger, M., et al.: ... , Lusetti, G., et al.: Abell



- 746: A Highly Disturbed Cluster Undergoing Multiple Mergers. *ApJ*, **966** (2024), 38
- Rajpurohit, K., O’Sullivan, E., Schellenberger, G., ... , Brüggén, M., et al.: A Deep Dive into the NGC 741 Galaxy Group: Insights into a Spectacular Head-tail Radio Galaxy from VLA, MeerKAT, uGMRT, and LOFAR. *ApJ*, **976** (2024), 64
- Ramesh, R., Nelson, D., Fielding, D., Brüggén, M.: Zooming in on the circumgalactic medium with GIBLE. The topology and draping of magnetic fields around cold clouds. *A&A*, **684** (2024), L16
- Rao, S., Baumgarten, J., Liske, J., Brüggén, M.: Detection of gravitational waves in circular particle accelerators II. Response analysis and parameter estimation using synthetic data. *PhRvD*, **110** (2024), 022007
- Roberts, I. D., van Weeren, R. J., Lal, D. V., ... , Brüggén, M., et al.: Radio-continuum spectra of ram-pressure-stripped galaxies in the Coma Cluster. *A&A*, **683** (2024), A11
- Roberts, I. D., van Weeren, R. J., de Gasperin, F., Botteon, A., Edler, H. W., et al.: A 100 kpc ram pressure tail trailing the group galaxy NGC 2276. *A&A*, **689** (2024), A22
- Robotham, A. S. G., Tobar, R., Bellstedt, S., Casura, S., et al.: ProPane: image warping with fire. *MNRAS*, **528** (2024), 5046
- Rosswog, S., Diener, P., Torsello, F., Tauris, T. M., Sarin, N.: Mergers of double NSs with one high-spin component: brighter kilonovae and fallback accretion, weaker gravitational waves. *MNRAS*, **530** (2024), 2336
- Ruh, H. L., Zechmeister, M., Reiners, A., ... , Schweitzer, A., et al.: The CARMENES search for exoplanets around M dwarfs: The impact of rotation and magnetic fields on the radial velocity jitter in cool stars. *A&A*, **692** (2024), A138
- Rutherford, T. H., van de Sande, J., Croom, S. M., ..., Casura, S., et al.: The SAMI Galaxy Survey: using tidal streams and shells to trace the dynamical evolution of massive galaxies. *MNRAS*, **529** (2024), 810
- Saavedra-Bastidas, J., Schleicher, D. R. G., Klessen, R. S., ... , Solar, P.: Gravitational collapse at low to moderate Mach numbers: The relationship between star formation efficiency and the fraction of mass in the massive object. *A&A*, **690** (2024), A186
- Sabarish, V. M., Brüggén, M., et al.: Simulations of galaxy cluster mergers with velocity-dependent, rare, and frequent self-interactions. *MNRAS*, **529** (2024), 2032
- Sarin, N., Rosswog, S.: Cautionary Tales on Heating-rate Prescriptions in Kilonovae. *ApJL*, **973** (2024), L24
- Sarkar, A., Andrade-Santos, F., van Weeren, R. J., ... , Hoang, D. N., et al.: On the Particle Acceleration Mechanisms in a Double Radio Relic Galaxy Cluster, Abell 1240. *ApJ*, **962** (2024), 161
- Sasaki, M., Robrade, J., Krause, M. G. H., et al.: eROSITA studies of the Carina nebula. *A&A*, **682** (2024), A172
- Schmirander, T., Miltchev, V., Rao, S., Brüggén, M., Grüner, F., Hillert, W., Liske, J.: Concept study of a storage ring-based gravitational wave observatory: Gravitational wave strain and synchrotron radiation noise. *PhRvD*, **110** (2024), 082002
- Schmitt, J. H. M. M., Hünsch, M., Schneider, P. C., Freund, S., Czesla, S., Robrade, J., Schwöpe, A.: Forbidden stars in the eROSITA all-sky survey: X-ray emission from very late-type giants. *A&A*, **688** (2024), A9
- Selg, S., Schmidt, W.: Magnetic field and kinetic helicity evolution in simulations of interacting disk galaxies. *A&A*, **689** (2024), A256
- Shan, Y., Revilla, D., Skrzypinski, S. L., ... , Fuhrmeister, B., et al.: CARMENES input catalog of M dwarfs. VII. New rotation periods for the survey stars and their correlations with stellar activity. *A&A*, **684** (2024), A9

- Shulevski, A., Brienza, M., Massaro, F., ... , Pasini, T., ... , Brüggén, et al.: LOFAR discovery and wide-band characterisation of an ultra-steep spectrum AGN radio remnant associated with Abell 1318. *A&A*, **682** (2024), A171
- Simonte, M., Andernach, H., Brüggén, M., Miley, G. K., Barthel, P.: Giant radio galaxies in the LOFAR deep fields. *A&A*, **686** (2024), A21
- Spasic, A., Edler, H. W., Su, Y., Brüggén, M., de Gasperin, F., Pasini, T., Heesen, V., Simonte, M., Boselli, A., Röttgering, H. J. A., Fossati, M.: ViCTORIA project: The LOFAR-MeerKAT view of active galactic nuclei in Virgo cluster early-type galaxies. *A&A*, **690** (2024), A195
- Sperling, T., Eislöffel, J., Manara, C. F., ... , Schneider, C., et al.: PENELLOPE. VI. Searching the PENELLOPE/UVES sample with spectro-astrometry: Two new microjets of Sz 103 and XX Cha. *A&A*, **687** (2024), A54
- Tabernero, H. M., Shan, Y., Caballero, J. A., ... , Schweitzer, A., et al.: The CARMENES search for exoplanets around M dwarfs: Magnesium and silicon abundances of K7–M5.5 stars. *A&A*, **689** (2024), A223
- Thanathibodee, T., Robinson, C. E., Calvet, N., ... , Schneider, P. C.: A Model of the C IV  $\lambda$  1548, 1550 Doublet Line in T Tauri Stars. *ApJ*, **975** (2024), 193
- Thao, P. C., Mann, A. W., Feinstein, A. D., ... , Schneider, P. C., et al.: The Featherweight Giant: Unraveling the Atmosphere of a 17 Myr Planet with JWST. *AJ*, **168** (2024), 297
- Toro-Velásquez, B., Schleicher, D. R. G., Käpylä, P. J., Ortiz-Rodríguez, C. A., et al.: Dynamos in partially convective M dwarfs. *BAAA*, **65** (2024), 75
- Tuntipong, S., van de Sande, J., Croom, S. M., ... , Casura, S., et al.: The SAMI galaxy survey: on the importance of applying multiple selection criteria for finding Milky Way analogues. *MNRAS*, **533** (2024), 4334
- Uttenthaler, S., Shetye, S., Nanni, A., ..., Wolter, U., et al.: The impact of third dredge-up on the mass loss of Mira variables. *A&A*, **690** (2024), A393
- van Weeren, R. J., Timmerman, R., Vaidya, V., ... , Brüggén, M., et al.: LOFAR high-band antenna observations of the Perseus cluster: The discovery of a giant radio halo. *A&A*, **692** (2024), A12
- Vanden Broeck, G., Bechet, S., Clette, F., Rauw, G., Schröder, K.-P., Mittag, M.: Relationship between TIGRE solar S-index and USET Ca II K full disk images. *A&A*, **689** (2024), A95
- Vičánek Martínez, T., Baron Perez, N., Brüggén, M.: Simulating images of radio galaxies with diffusion models. *A&A*, **691** (2024), A360
- Vollmann, M., Welzmüller, F., Gajović, L.: diffSph: a Python tool to compute diffuse signals from dwarf spheroidal galaxies. *JCAP*, **2024** (2024), 046
- von Stauffenberg, A., Trifonov, T., Quirrenbach, A., ..., Schweitzer, A.: The CARMENES search for exoplanets around M dwarfs. Revisiting the GJ 581 multi-planetary system with new Doppler measurements from CARMENES, HARPS, and HIRES. *A&A*, **688** (2024), A112
- Winnberg, A., Brand, J., Engels, D.: Water vapour masers in long-period variable stars. III. Mira variables U Her and RR Aql. *A&A*, **686** (2024), A251
- Worley, C. C., Smiljanic, R., Magrini, L., ... , Marfil, E., et al.: The Gaia-ESO Survey: The DR5 analysis of the medium-resolution GIRAFFE and high-resolution UVES spectra of FGK-type stars. *A&A*, **684** (2024), A148
- Xie, Z.-L., Banados, E., Belladitta, S., ... , Schindler, J.-T., et al.: Recognizing Blazars Using Radio Morphology from the VLA Sky Survey. *ApJ*, **964** (2024), 98

- Ye, H., Sweijen, F., van Weeren, R. J., ... , Brügger, M., et al.: 1-arcsecond imaging of the ELAIS-N1 field at 144MHz using the LoTSS survey with the international LOFAR telescope. *A&A*, **691** (2024), A347
- Zhang, X., Bulbul, E., Malavasi, N., ... , Brügger, M., et al.: The SRG/eROSITA all-sky survey: X-ray emission from the warm-hot phase gas in long cosmic filaments. *A&A*, **691** (2024), A234
- Zheng, S., Li, J., Wang, J., ... , Gao, F., et al.: Mapping Observations of Peptide-like Molecules around Sagittarius B2. *ApJ*, **961** (2024), 58

Robi Banerjee