

Garching bei München

Max Planck Institut für Astrophysik

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0 Allgemeines

Das Max Planck Institut für Astrophysik ging hervor aus der gleichnamigen Abteilung am Göttinger MPI für Physik. Mit dem Umzug nach München im Jahre 1958 wurde dieses erweitert zum MPI für Physik und Astrophysik mit Heisenberg und Biermann als Direktoren. Die Arbeiten zur theoretischen Astrophysik lieferten grundlegende Erkenntnisse zur Sonnenphysik, Plasmaphysik und Sternstruktur. 1963 wurde als neues Teilinstitut das Institut für extraterrestrische Physik gegründet. 1991 erfolgte die Aufteilung in drei eigenständige Max-Planck-Institute, das MPI für Physik (MPP), das MPI für Astrophysik (MPA) und das MPI für extraterrestrische Physik (MPE). 2008 feierte das MPA sein 50-jähriges Jubiläum. Im Herbst 2009 bekam das MPA die Genehmigung für einen Erweiterungsbau. Ziel war es, in dem neuen Gebäude einen größeren Hörsaal (120 Sitze), die Computer Gruppe, sowie die Verwaltung (MPE/MPA) unterzubringen. Die Räumlichkeiten im Altbau werden von den MPA Wissenschaftler/innen genutzt. Im Sommer 2013 waren alle Umzüge in den Anbau abgeschlossen. Seit Juni 2014 ist das neu renovierte Gästehaus wieder eröffnet worden und wird auch sehr intensiv von MPA und MPE Gästen genutzt. Zugehörig zum Gästehaus wurde 2015 noch ein Gemeinschaftsraum mit Küche fertiggestellt. Auch ein kleines Teleskop auf dem Dach des Instituts wurde installiert. Die wissenschaftliche Ausrichtung des MPA hat ihren Schwerpunkt in theoretischen Studien, allerdings beteiligt sich das Institut auch immer wieder an größeren Beobachtungsprogrammen, unter anderem betreibt es auch eine Station des LOFAR Radioteleskops. Aktuell wird das Institut von vier Direktoren geleitet, in den Bereichen Physikalische Kosmologie (Komatsu), Galaxienentwicklung (Kauffmann), Stellare Astrophysik (de Mink) und Numerische Astrophysik (Springel).

1 Personal und Ausstattung

1.1 Personalstand

Direktoren und Professoren: 4

Prof. Dr. Selma de Mink [2020-], Prof. Dr. Guinevere Kauffmann [2013-], Prof. Dr. Eiichiro Komatsu [2012-] (Geschäftsführender Direktor bis 31.12.25), Prof. Dr. Volker Springel [2018-]

ForschungsgruppenleiterInnen/W2 Mitarbeiter: 15

Dr. Fabrizio Arrigoni-Battaia, Dr. Eugene Churazov, Dr. Benedetta Ciardi, Dr. Torsten Enßlin, Dr. Marat Gilfanov, Dr. Max Grönke (bis 30.06.2025), Dr. Hans-Thomas Janka, Dr. Stephen Justham, Dr. Thorsten Naab, Dr. Rüdiger Pakmor, Dr. Fabian Schmidt, Dr. Mahdih Schmidt (wissenschaftliche Koordination), Dr. Sherry Suyu (Max Planck Fellow sowie Associate Professor an der Technischen Universität München (TUM)), Dr. Simona Vegetti, Prof. Dr. Achim Weiss.

Wissenschaftliche Mitarbeiter: 35

Dr. Noemi Anau Montel, Dr. Ivana Babic (bis 31.01.2025), Dr. Aniket Bhagwat, Dr. Jan David Burger, Dr. Seokjun Chang, Dr. Patricia Diego Palazuelos, Dr. Caitlin Christine Doughty, Dr. Adriaan Judocus Duivenvoorden, Dr. Alankar Dutta, Dr. Anna Genina, Dr. Robert Glas, Dr. Cesar Hernandez Aguayo, Dr. Andrew Spencer Jamieson, Dr. Jakub Andrzej Klencki, Dr. Valeriya Korol, Dr. Daniel Kresse, Dr. Toshiki Kurita, Dr. Natalia Anne Maarit Lahen, Dr. Alejandra Daniela Melo Melo, Dr. Iker Millan Irigoyen, Dr. Vyoma Muralidhara (bis 31.01.2025), Dr. Aleksandra Maria Olejak, Dr. Conor O'Riordan, Dr. Bo Peng, Dr. Devon Powell, Dr. Antti Jalmari Rantala, Dr. Jakob Roth, Dr. Taeho Ryu, Dr. Matthew Smith, Dr. Julia Stadler, Dr. Jakob Stegmann, Dr. Rosemary Yvette Talbot, Dr. Stefan Taubenberger, Dr. Alejandro Vigna Gomez, Dr. Chen Wang, Dr. Maria Chiara Werhahn

Doktoranden: 54

Anshuman Acharya (bis 31.05.2025), Silvia Elizabeth Almada Monter, Shaghaiegh Azyzy, Arghyadeep Basu (bis 31.07.2025), Teresa Andrea Maria Braun, Jinghao Cai, Benedetta Casavecchia, Safak Celik, Francesco Conteddu (seit 15.05.2025), Elie Rasmussen Cueto (seit 1.10.2025), Hitesh Kishore Das (bis 31.07.2025), Willem de Roo, Vincent Lukas Johannes Eberle, Fulvio Ferlito (bis 31.07.2025), Jana Grupa (bis 31.03.2025), Matteo Guardiani, Jakob Franz Hein, Malte Laurenz Heinlein, Eileen Herwig, Fernando Hidalgo Pineda, Jonathan Aimé Jäger, Mrinal Jetti, Gaoxiang Jin, Vishal Johnson, Thibault Lechien, Maja Vanessa Katherina Lujan Niemeyer, Jingze MA, Elias Mamuzic, Alexander Christian Mayer, Jeongin Moon, Yasmin Nehme (1.08.2025), Ivana Nikolac, Tilman Oelgeschläger, Ananya Patankar (seit 16.06.2025), Taylor Pomfret (seit 1.09.2025), Silvia Anastasia Popa, Shubham Raghuvanshi, Abinaya Swaruba Rajamuthukumar, Katlego Jafta Ramalatswa, Bryce Alexander Remple (bis 31.03.2025), Jelena Ritter, Ananya Shankar, Sophia Schnauck, Lazaros Souvaizis, Maryam Tajalli, Joanne Tan, Katyayani Trivedi, Beatriz Tucci Schiewaldt (bis 31.05.2025), Ruggero Valli, Akash Darshan Vani, Han Wang, Margret Leonie Westerkamp (bis 31.03.2025), Hanieh Zandinejad, Robert Zimmermann (seit 1.05.2025)

Masterstudenten: 31

Duy Anh Hoang, Ahmet Eren Durmusbas, Leena Iwamoto, Christopher Hecker, Fabian Sigler, Iason Saganas, Andreas Popp, Anisha Anisha, Aditya Kuber Parit, Mohammadreza Ashari, Allan Schweinfurth Pupo, Anton Darius Nöbauer, Benedikt Seidl, Jinhao Cai, Giovanni Stimamiglio, Patrik Kuster, Jaemin Ryu, Jennifer Faba Moreno, Hannah Röttgen, Ming Kei Chan, Morgane Krauth, Marion Asasira, Elias-Gabriel Djossou, Francesco Conteddu, Ronald Sembatya, Sangjun Cha, Thomas Stocker, Jeonghun Jeong, Asu Nisa Ünver, Gülsah Zeynep Yigit, Richa Shree, Sreevarsha Srinivasan, Irwin Tay, Marie Erika Diesenberger, Mohammed Farhan Hassan

Sekretariat und Verwaltung: 4

Marzia Dallolio (seit 1.2.2025), Gabriele Kratschmann, Solvejg Schröder, Ana Lomidze

Verwaltungsleitung: Pia Fischhaber

Technische Mitarbeiter: 9

Computational Support: Andreas Breitsfeld, Daniel Richter (seit 1.7.2025), Goran Toth (IT management), Martin Reineke, Andreas Weiss, Gerhardt Werner Grek

Library: Mirna Balicevic, Christiane Bartels (library management)

Public relation: Dr. Hannelore Hämmerle

Gäste: 26

Conny Aerts (KU Leuven, 06.10–24.10)
 Min Bao (Nanjing Univ., 02.07–30.07)
 Andrei Beloborodov (Columbia Univ., 01.06–18.01)
 Ken Chen (Academia Sinica Taiwan, 07.09–20.09)
 Yanmei Chen (Nanjing Univ., 02.07–30.07)
 Gen Chiaki (Kochi College, 02.09–14.09)
 Jorge Rodrigo (Univ. Adolfo Ibáñez, 13.01–13.02)
 Dipayan Datta (IIS, 13.10–28.02)
 Paola Dominguez-Fernandez (Harvard–Smithsonian, 24.07–03.08)
 Philipp Frank (Stanford Univ., 04.08–25.08)
 James Fuller (Caltech, 19.06–15.09)
 Facundo Gómez (Univ. Nac. La Plata, 28.06–26.07)
 Alexander Heger (Monash Univ., 01.07–11.07, 28.07–15.08)
 Tomasz Kacprzak (ETH Zürich, 01.08–31.01)
 Qingbo Ma (Guizhou Normal Univ., 12.05–12.07)
 Paolo Mazzali (Liverpool John Moores Univ., 21.07–02.10)
 Antonela Monachesi (Univ. Nac. de Córdoba, 28.06–26.07)
 Jens Niemeyer (Univ. Göttingen, 04.08–22.08)
 Elena Pian (INAF Bologna, 21.07–02.10)
 Mauro Pieroni (CERN, 13.07–27.07)
 Kandaswamy Subramanian (IUCAA Pune, 30.05–29.07)
 Patricia B. Tissera (Pontif. Univ. Cat. Chile, 14.07–25.07)
 Valentina Vacca (INAF Italy, 01.06–02.08)
 Chen Wang (Nanjing Univ., 17.10–26.10)
 Yu-Jan Wang (ASIAA Taipei, 01.10–31.10)
 Saleem Zaroubi (ARCO Open Univ. Israel, 26.09–24.10)

1.2 Instrumente und Rechenanlagen

Am MPA wurde immer besonderer Wert auf numerische Astrophysik und damit auf das Vorhandensein exzellenter Rechner-Kapazitäten gelegt, auf das die Wissenschaftler sowohl am Institut selbst als auch extern zugreifen können. Zur Zeit besteht das institutseigene Computersystem aus zentralen Linux-basierten Rechner-, Daten- und Netzwerk-Servern. Diese werden von der hauseigenen IT-Gruppe betrieben. Die Nutzer haben freien Zugang zu den zentralen Systemen über Linux-basierte Desktop-PCs oder ihre Laptops und VPN. Die Daten werden ebenfalls zentral auf Fileservern mit einer Gesamtkapazität von mehreren 100 Terabyte verwaltet und über das AFS-Filesystem verteilt. Für alle kritischen Daten wird täglich ein Back-up erstellt. Zusätzlich zu den mehr als 150 voll ausgestatteten Arbeitsplatz-PCs haben die Nutzer Zugang zum zentralen Rechenzentrum des MPA. Der hauseigene Cluster bietet derzeit mehr als 3000 Kerne. Die gesamte Online-Plattenkapazität am MPA liegt im Petabyte-Bereich, wobei einzelne Nutzer je nach wissenschaftlichem Bedarf über Speicherplatz von wenigen GB bis zu dutzenden TB verfügen. Energieverbrauch und Kühlung sind ein entscheidender Aspekt von IT-Installationen geworden. Das MPA konzentriert sich deshalb auf Hardware mit geringem Stromverbrauch und effiziente, umweltfreundliche Kühlung.

Für außerordentliche Anforderungen haben MPA-Wissenschaftler Zugang zum zentralen Rechenzentrum der Max-Planck Gesellschaft in Garching (MPCDF), das nur wenige hundert Meter entfernt liegt, sowie das nahe Leibniz-Rechenzentrum des Freistaats Bayern

(LRZ) und andere deutsche Höchstleistungsrechenzentren (z.B. in Stuttgart und Jülich). Das MPCDF bietet unter anderem hoch-parallele Supercomputer, eine große Zahl an weiteren leistungsfähigen Compute-Clustern, von denen einiger ausschließlich vom MPA genutzt wird, zusammen mit einem Massenspeicher mit einer Gesamtkapazität im multi-Petabyte-Bereich. Diese sind der Freya-Cluster und der Orion-Cluster.

1.3 Gebäude und Bibliothek

Das MPA-Gebäude wurde 1979 von den Architekten Fehling und Gogel im Forschungsgelände Garching, in enger Nachbarschaft zu dem von den gleichen Architekten konzipierten Hauptquartier der Europäischen Südsternwarte (ESO), gebaut. In den folgenden Jahrzehnten wuchs in Garching eines der führenden Wissenschaftszentren Europas heran, und ESO, MPA und MPE bilden heute gemeinsam die größte Zusammenballung exzellenter astrophysikalischer Forschungskapazitäten in Europa. Die Astrobibliothek ist die gemeinsame Bibliothek des MPE und des MPA. Derzeit beherbergt sie eine einzigartige Sammlung von etwa 54.000 Büchern und Zeitschriften, rund 7.300 Berichten und Veröffentlichungen von Observatorien sowie gedruckte Abonnements für 70 gedruckte und etwa 500 elektronische wissenschaftliche Zeitschriften. Darüber hinaus pflegt sie ein Archiv der Veröffentlichungen von MPA und MPE, zwei Diasammlungen (eine für das MPA und eine für das MPE), eine Sammlung von etwa 800 audiovisuellen Medien sowie Kopien des Palomar Observatory Sky Survey (auf fotografischen Abzügen) und des ESO/SERC Sky Survey (auf Film). Der Bibliothekskatalog umfasst Bücher, Konferenzberichte, Periodika und Dissertationen – sowohl in gedruckter Form als auch online.

2 Akademische Abschlussarbeiten

2.1 Masterarbeiten

Abgeschlossen: 11

Christopher Hecker: “Acceleration of Cosmic Structure Formation Simulations with AREPO using GPUs”, Technische Universität München

Giovanni Stimamiglio: “Theoretical Predictions for the Surface Magnetic Fields of Binary-stripped Massive Stars”, Ludwig-Maximilians-Universität München

Moritz Singhartinger: “Field-Level Inference of Cosmological Large-Scale Structure: Evaluating Initial Gaussianity and Parameter Convergence in MCMC Sampling”, Technische Universität München

Mohammadreza Ashari: “Neutrino Sky Map”, Ludwig-Maximilians-Universität München

Karl Heggenberger: “Introduction of the Competence of Agents in the Reputation Game Simulation”, Ludwig-Maximilians-Universität München

Patrik Kuster: “Bivariate Causal Inference with Information Field Theory”, Ludwig-Maximilians-Universität München

Andreas Popp: “Calibration and Imaging of the Supernova Remnant SN 1006 with Fast-Resolve”, Ludwig-Maximilians-Universität München

Ananya Shankar: “Bayesian Component Separation of the Polarized Microwave Sky”, Ludwig-Maximilians-Universität München

Fabian Wolfgang Sigler: “Information Field Theory Based Imaging for Coherent X-Ray Scattering”, Ludwig-Maximilians-Universität München

Daniel Muschiol: “Investigation of the Reconstruction Accuracy of Galaxy Position Data from a Backward-Optimized Digital Hologram”, Hochschule Ruhr West

Jinhao Cai: “Gravitational Waves from Long-Term Axisymmetric Simulations of Accretion-Induced Collapse of White Dwarfs”, Technische Universität München

2.2 Dissertationen

Abgeschlossen: 8

Jana Grupa: “Gravitationally lensed supernovae in the era of Rubin Observatory”, Technische Universität München

Fulvio Ferlito: “High-precision weak gravitational lensing predictions with the Millennium TNG simulations”, Ludwig-Maximilians-Universität München

Tirso Marin Gilabert: “The role of viscosity for mixing and transport processes in galaxy clusters and multiphase gas”, Ludwig-Maximilians-Universität München

Arghyadeep Basu: “Tracing the start and end of cosmic reionization - exploring the role of ionizing sources as drivers”, Ludwig-Maximilians-Universität München

Anshuman Acharya: “The intergalactic medium at the epoch of reionization”, Ludwig-Maximilians-Universität München

Beatriz Tucci Schiewaldt: “Simulation-based inference for galaxy clustering”, Ludwig-Maximilians-Universität München

Bryce Alexander Remple: “AGB Evolution and Nucleosynthesis: Understanding the Uncertainties”, Ludwig-Maximilians-Universität München

Margret Westerkamp: “Accelerated Bayesian inference techniques for event based datasets - in nested sampling and X-ray astronomy”, Ludwig-Maximilians-Universität München

3 Veröffentlichungen

S. Abe, ..., A. Babic, J. L. Contreras, S. G. Soto, et al., “Testing the ubiquitous presence of very high energy emission in gamma-ray bursts with the MAGIC telescopes,” *ASTRONOMY & ASTROPHYSICS* 700, A96 (2025).

E. Banados, ..., C. Dominguez-Tagle, F. Shankar, J. Zhang, L. A. Popa, Y. Wang, et al., “Euclid: the potential of slitless infrared spectroscopy: a $z=5.4$ quasar and new ultra-cool dwarfs,” *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY* 542 (2), 1088-1102 (2025).

E. Ceccotti, ..., A. Acharya, B. Ciardi, S. Ghosh, S. Zaroubi, et al., “First upper limits on the 21-cm signal power spectrum of neutral hydrogen at $z=9.16$ from the LOFAR 3C 196 field,” *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY* 544 (1), 1255-1283 (2025).

Y. Zhou, Y. Chen, ..., J. Wang, G. Jin, L. Wang, M. Bao, et al., “Misaligned External Gas Acquisition Boosts Central Black Hole Activities,” *ASTROPHYSICAL JOURNAL* 994 (1), 9 (2025).

A. D. Montero-Dorta, ..., D. Galarraga-Espinosa, C. A. Soto-Suarez, I. Fernandez-Sanchez, et al., “The galaxy bias profile of cosmic voids,” *ASTRONOMY & ASTROPHYSICS* 703, A58 (2025).

E. Lozano, C. Scannapieco, S. E. Nuza, Y. Ascasibar, and V. Springel, “From atoms to stars: Modelling H₂ formation and its impact on galactic evolution,” *ASTRONOMY & ASTROPHYSICS* 703, A57 (2025).

S. C. Lewis, ..., C. Cournoyer-Cloutier, et al., “Transferring Data from a Voronoi Mesh to an Adaptive Cartesian Grid in Pursuit of Self-consistent Top-down Star Formation,” *ASTROPHYSICAL JOURNAL* 994 (1), 69 (2025).

- J. D. Burger, ..., M. C. Smith, R. Pakmor, L. Hernquist, et al., “Applying a star formation model calibrated on high-resolution interstellar medium simulations to cosmological simulations of galaxy formation,” MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 544 (2), 1390-1411 (2025).
- F. Ferlito, ..., T. Kurita, L. Hernquist, et al., “Fully non-linear simulations of galaxy intrinsic alignments for weak lensing with the MillenniumTNG light-cone,” MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY 544 (2), 1305-1322 (2025).
- B. Husquinet, J. Vitorino, O. Sipila, P. Caselli, and F. Dulieu, “Neon is an inhibitor of CO hydrogenation in pre-stellar core conditions,” ASTRONOMY & ASTROPHYSICS 703, A16 (2025).
- K. Medler, ..., D. D. Desai, S. Gomez, P. A. Mazzali, N. Smith, L. Wang, Q. Wang, Y. Yang, et al., “JWST Observations of SN 2023ixf. II. The Panchromatic Evolution between 250 and 720 Days after the Explosion,” ASTROPHYSICAL JOURNAL 993 (2), 191 (2025).
- E. Rasia, ..., K. Dolag, et al., “The Three Hundred Project: Modeling baryon and hot-gas fraction evolution in simulated clusters,” ASTRONOMY & ASTROPHYSICS 702, A182 (2025).
- A. Villey, Y. B. Ginat, V. Desjacques, D. Jeong, and F. Schmidt, “Large-scale-structure observables in general relativity validated at second order,” JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS (10), 105 (2025).
- S. K. Pal, S. Dasgupta, A. Datta, ..., S. Bag, et al., “Interpreting the HI 21 cm cosmology maps through Largest Cluster Statistics. Part II. Impact of the realistic foreground and instrumental noise on synthetic SKA1-Low observations,” JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS (10), 096 (2025).
- M. Cornelius, I. Tamborra, M. Heinlein, and H. Janka, “Diagnosing electron-neutrino lepton number crossings in core-collapse supernovae: A comparison of methods,” PHYSICAL REVIEW D 112 (6), 063004 (2025).
- E. Herwig, F. A. Battaia, C. Chen, ..., et al., “Submillimeter galaxy overdensities around physically associated quasar pairs,” ASTRONOMY & ASTROPHYSICS 703, A17 (2025).
- N. Inostroza-Pino, M. Mckissick, V. Lattanzi, P. Caselli, and R. C. Fortenberry, “Fundamental Vibrational Frequencies and Spectroscopic Constants for Additional Tautomers and Conformers of NH₂CHCO,” CHEMISTRY-SWITZERLAND 7 (5), 140 (2025).
- A. Herraiez, D. Lust, and C. Montella, “Black hole transitions, AdS spacetime, and the distance conjecture,” PHYSICAL REVIEW D 112 (8), 086006 (2025).
- A. Arbet-Engels, A. Bohdan, F. Rieger, D. Paneque, and F. Jenko, “Radiative signatures of electron-ion shocks in BL Lac type objects,” ASTRONOMY & ASTROPHYSICS 702, A255 (2025).
- Di Valentino, ..., Gomez-Valent, Huang, Cheng-Yu, Zhang, Zhang, Moreno-Pulido, Fernandez-Arenas, Wang, Deng, Diego, Chen, Gomez-Vargas, Zavala, Rubio, Gonzalez-Espinoza, Melo, Trivedi, Das, Suyu, Stefano, Stefano, Castello, Yang, Yu-Min, De, Dominguez, Wang, Das, Zhang, et al., “The CosmoVerse White Paper: Addressing observational tensions in cosmology with systematics and fundamental physics,” PHYSICS OF THE DARK UNIVERSE 49, 101965 (2025).
- X. Ding, ..., L. Yang, F. Wang, J. Yang, et al., “SHELLQs-JWST Unveils the Host Galaxies of 12 Quasars at $z > 6$,” ASTROPHYSICAL JOURNAL 993 (1), 91 (2025).

- V. Venkatesan, ..., J. J. Wang, J. Stadler, et al., “Constraints on the Orbit of the Young Substellar Companion GQ Lup B from High-resolution Spectroscopy and VLTI/GRAVITY Astrometry,” *ASTROPHYSICAL JOURNAL* 993 (1), 69 (2025).
- B. Beringue, ..., A. J. Duivenvoorden, et al., “The Atacama Cosmology Telescope: DR6 power spectrum foreground model and validation,” *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS* (10), 082 (2025).
- D. J. Bowden, ..., G. Ferrami, L. Iwamoto, G. G. Kacprzak, S. H. Suyu, et al., “Constraining Cosmology with Double-source-plane Strong Gravitational Lenses from the AGEL Survey,” *ASTROPHYSICAL JOURNAL* 993 (1), 124 (2025).
- J. M. Sullivan, ..., C. Hernandez-Aguayo, L. Hernquist, et al., “High-redshift millennium and astrid galaxies in effective field theory at the field level,” *PHYSICAL REVIEW D* 112 (8), 083521 (2025).
- S. Ertl, S. H. Suyu, ..., S. Cha, J. M. Diego, H. Wang, et al., “Cosmology with supernova Encore in the strong lensing cluster MACS J0138-2155,” *ASTRONOMY & ASTROPHYSICS* 702, A157 (2025).
- A. J. Shajib, ..., A. Melo, et al., “An accurate measurement of the spectral resolution of the JWST Near Infrared Spectrograph,” *ASTRONOMY & ASTROPHYSICS* 702, L12 (2025).
- Z. Zhang, Y. Chen, ..., M. Bao, G. Jin, et al., “The origin of double-peaked narrow emission-line galaxies in MaNGA survey,” *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY* 543 (3), 3089-3101 (2025).
- Y. Wang, C. Chen, F. A. Battaia, ..., et al., “A Multiwavelength Study of ELAN Environments (AMUSE2): The Impact of Dense Environment on Massive Dusty Star-forming Galaxies at Cosmic Noon,” *ASTROPHYSICAL JOURNAL* 993 (1), 111 (2025).
- W. McCallum, ..., et al., “The $H\alpha$ sky in three dimensions,” *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY* 540 (1), L21-L27 (2025).
- B. A. Seidel, K. Dolag, ..., E. Hernandez-Martinez, I. Khabibullin, et al., “Simulating the Local Web (SLOW) IV. Not all that is close will merge in the end: Superclusters and their Lagrangian collapse regions,” *ASTRONOMY & ASTROPHYSICS* 702, A243 (2025).
- T. A. Rintoul, ..., R. Pakmor, M. Werhahn, R. Y. Talbot, et al., “The role of magnetic fields in ram pressure stripping of satellite galaxies in the circumgalactic medium around massive galaxies,” *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY* 543 (4), 4321-4334 (2025).
- R. Pakmor, ..., F. A. Gomez, M. Werhahn, R. Y. Talbot, et al., “Auriga Superstars: Improving the resolution and fidelity of stellar dynamics in cosmological galaxy simulations,” *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY* 543 (4), 4355-4368 (2025).
- N. Lyskova, E. Churazov, I. I. Khabibullin, ..., M. Gilfanov, et al., “X-ray flux-mass relation for $z \geq 0.7$ galaxy clusters,” *ASTRONOMY & ASTROPHYSICS* 702, A175 (2025).
- V. Brugaletta, ..., T. Naab, et al., “SILCC - IX. The multiphase interstellar medium at low metallicity,” *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY* 543 (4), 4286-4311 (2025).

- W. de Roo, S. Vegetti, D. M. Powell, ..., R. Pakmor, J. P. McKean, et al., “A grand-design spiral galaxy with an ordered magnetic field at redshift 2.6 as resolved with ALMA and gravitational lensing,” *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY* 540 (1), L78-L83 (2025).
- S. Hubrig, A. Vigna-Gomez, S. P. Jaervinen, M. Schoeller, and I. Ilyin, “A magnetic tertiary in the most massive compact triple-star system,” *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY* 541 (1), L80-L84 (2025).
- I. Kostyuk, and B. Ciardi, “Influence of mergers on the Lyman continuum escape of high-redshift galaxies,” *ASTRONOMY & ASTROPHYSICS* 702, A226 (2025).
- N. Lahen, “How did the oldest star clusters form?,” *NATURE* 645 (8080), 322-323 (2025).
- B. Beringue, ..., A. J. Duivenvoorden, et al., “The Atacama Cosmology Telescope: DR6 power spectrum foreground model and validation,” *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS* (10), 082 (2025).
- D. J. Bowden, ..., G. Ferrami, L. Iwamoto, G. G. Kacprzak, S. H. Suyu, et al., “Constraining Cosmology with Double-source-plane Strong Gravitational Lenses from the AGEL Survey,” *ASTROPHYSICAL JOURNAL* 993 (1), 124 (2025).
- S. Ertl, S. H. Suyu, ..., S. Cha, J. M. Diego, H. Wang, et al., “Cosmology with supernova Encore in the strong lensing cluster MACS J0138-2155 - Photometry, cluster members, and lens mass model,” *ASTRONOMY & ASTROPHYSICS* 702, A157 (2025).
- A. J. Shajib, ..., A. M. Melo, et al., “An accurate measurement of the spectral resolution of the JWST Near Infrared Spectrograph,” *ASTRONOMY & ASTROPHYSICS* 702, L12 (2025).
- Z. Zhang, Y. Chen, ..., M. Bao, G. Jin, et al., “The origin of double-peaked narrow emission-line galaxies in MaNGA survey,” *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY* 543 (3), 3089-3101 (2025).
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4 Lehrtätigkeit und Gremientätigkeit

4.1 Lehrtätigkeiten: Vorlesungen

- P. Diego Palazuelos: MPA Postdoc/Staff Lecture Series on Cosmology “Axion birefringence: probing ultra-light particles with polarized light”, (24.07.2025)
SS 2025, LMU München:
- T. Enßlin: Intelligence & Field Theory lecture (4 SWS, 1 semester) LMU München, 28.4.-22.7.2025
- T. Enßlin: Intelligence & Field Theory exercises (2 SWS, 1 semester) LMU München, 28.4.-22.7.2025
- T. Enßlin: Signal reconstruction with Python (key qualification course), LMU München, Garching, 22.-26.9.2025
- J. Grupa: Blick durch die kosmische Lupe: Wie Gravitationslinsen das Universum enthüllen
- J. Grupa: 47. Edgar-Lüscher-Seminar in Zwiesel (Zwiesel, 4.04-6.04.25)
- M. Guardiani: Harvard-Smithsonian Center for Astrophysics (Cambridge MA, USA, 5.11.25)
- H.-Th. Janka, SS 2025 and WS 2025/2026, TUM, München:
- Introduction to Theoretical Astrophysics
 - Stellar Explosions
- E. Komatsu: LMU, München: - Topics in Theoretical Cosmology
- T. Kurita, postdoc/staff lecture series on cosmology 25.03.2025, MPA
- E. Mamuzic, SS 2025, TUM: KTA Intro in English Tutorium
- E.Müller: WS24/25, TUM, München: - Gravitational Waves
- E.Müller (together with H.-T.Janka): SS25 and WS25/26, TUM, München:
- Introduction to Theoretical Astrophysics - Exploding Stars
- S. H. Suyu, WS2024/2025 and SS2025, TUM, München:
- Experimental Physics 1
 - Gravitational Lensing
 - Introduction to Nuclear, Particle and Astrophysics
 - Extragalactic Astrophysics

4.2 Gremientätigkeit

- E. Churazov: Member of IAU
- E. Churazov: Vice-chair of COSPAR Commission E
- E. Churazov: Editorial Board of Astronomy Letters
- B. Ciardi: member of the International Astrostatistics Associations
- B. Ciardi: member of the German LOng Wavelenth (GLOW) Consortium
- B. Ciardi: member of the International Astronomical Union
- B. Ciardi: vice-chair of the GLOW Consortium
- B. Ciardi: member of the GLOW Executive Committee
- P. Diego Palazuelos: Speaker Selection Committee of the LiteBIRD Collaboration
- P. Diego Palazuelos: European Astronomical Society
- P. Diego Palazuelos: European Consortium for Astroparticle Theory
- P. Diego Palazuelos: Spanish Astronomical Society
- T. Enßlin: Head of Data Science at German Centre for Astrophysics (DZA)
- T. Enßlin: Editorial Board Member of the Journal for Cosmology and Astroparticle Physics
- T. Enßlin: Editorial Board Member of the Journal Entropy

H.-Th. Janka: Editorial Board of JCAP
 H.-Th. Janka: Advisory Board for “Sterne und Weltraum”
 E. Komatsu: Member of the German Astronomical Society
 E. Komatsu: Member of the American Astronomical Society
 E. Komatsu: Member of the American Physical Society
 E. Komatsu: Member of the Astronomical Society of Japan
 E. Komatsu: Member of the Physical Society of Japan
 E. Komatsu: RIKEN Committee, Ministry of Education, Culture, Sports, Science and Technology (MEXT), Japan
 E. Komatsu: ArXiv Scientific Advisory Council
 E. Komatsu: Scientific Advisory Committee, Leung Center for Cosmology and Particle Astrophysics (LeCosPA), Taipei
 E. Komatsu: Selection Committee for the Shaw Prize
 T. Kurita: The Astronomical Society of Japan
 N. Lahen: Junior Member of the International Astronomical Union
 N. Lahen: Member of the European Astronomical Society
 N. Lahen: Member of the Finnish Astronomical Society
 I. Millan Irigoyen: Member of the Spanish Astronomical Society
 I. Millan Irigoyen: Member of the European Astronomical Society
 E. Müller: Member of the (German) Astronomical Society
 E. Müller: Member of the International Astronomical Union
 E. Müller: Member of the German Physical Society
 A. Rantala: Member of the International Astronomical Union
 A. Rantala: Member of the LISA Astrophysics Working Group
 F. Schmidt: DFG member.
 V. Springel: Vice President of the German Astronomical Society
 V. Springel: Member of the Editorial Board for Living Reviews in Computational Astrophysics
 V. Springel: Board of Trustees, Welt der Physik
 V. Springel: Board of Trustees, MIP.labor, Berlin
 V. Springel: Member of the German Academy of Sciences, Leopoldina
 V. Springel: Member of the National Academy of Sciences of the US
 V. Springel: Member of the German Astronomical Society
 V. Springel: Member of the International Astronomical Union
 V. Springel: Member of the European Astronomical Society
 V. Springel: Member of the German Physical Society
 V. Springel: Member of the Research Board of the ORIGINS Cluster of Excellence
 V. Springel: Member of the Scientific Advisory Board of the Max Planck Computing and Data Facility
 V. Springel: Scientific Advisory Board of the Zentrum für Astronomie (ZAH), Heidelberg University
 V. Springel: Scientific Advisory Board of the Leibniz Institute for Astrophysics Potsdam
 S. H. Suyu: member of telescope time allocation committee
 S. H. Suyu: reviewer for funding agencies

4.3 Kolloquiumsvorträge

N. Anau Montel: Cambridge-LMU seminar (remote, May 2025)
 N. Anau Montel: Modern Numerics for Theoretical Physics seminar @ ITP in Heidelberg (October 2025)
 F. Arrigoni Battaia: Université Paris-Saclay (Paris, France, 4.11)
 F. Arrigoni Battaia: INAF OAS (Bologna, Italy, 13.11)
 D. Calderón: Astronomical Institute, Czech Academy of Sciences (Prague, Czechia, 13.08.2025)
 D. Calderón: Departamento de Física, Universidad de Santiago de Chile (Santiago, Chile, 26.03.2025)
 D. Calderón: Departamento de Astronomía, Universidad de Concepción (Concepción, Chi-

le, 05.03.2025)

D. Calderón: Departamento de Astronomía, Universidad de Chile (Santiago, Chile, 03.01.2025)

E. Churazov: Harvard-Smithsonian Center for Astrophysics, (Cambridge, USA, 10.09.)

P. Diego-Palazuelos: Lawrence Berkeley National Laboratory (LBNL) CMB lunch seminar “Cosmic birefringence: searching for parity-violating physics with the CMB polarization” (Berkeley, US, 03.10.2025)

A. Dutta: When Winds Get Messy: Turbulence, Expansion and the Fate of cold clouds, (Monday Lunch Talk, University of Groningen, Netherlands 29.09.2025) - (contributed talk)

T. Enßlin: Towards a Milky Way Atlas with Information Field Theory at Universitätssternwarte München, Germany - USM/LMU (12.05.2025)

T. Enßlin: Information Field Theory: Concepts and Astrophysical Applications at Institut für nachhaltige Wasserstoffwirtschaft (INW), Forschungszentrum Jülich, Germany (28.07.2025)

T. Enßlin: Seminar at ITP, Heidelberg, Germany (25.11.2025)

E. Herwig: ESO Santiago TMT: “The circumgalactic medium and Mpc-scale environment around quasar pairs at $z \sim 3''$ ”, (Santiago, Chile, 03/2025)

E. Herwig: ASIAA Lunch Talk: The multiscale environment of quasar pairs at $z \sim 3'''$, (Taipei, Taiwan, 09/2025)

E. Herwig: MPIA Galaxy Coffee: “The environment of $z \sim 3$ quasar pairs” (Heidelberg, Germany, 10/2025)

H.-Th. Janka: Cardiff University (Cardiff, Wales, 12.3.2025)

H.-Th. Janka: Sauverny Observatory, University of Geneva and Ecole Polytechnique Fédérale de Lausanne (Geneva, Switzerland, 7.10.2025)

E. Komatsu: DESY (Hamburg, Germany, 6.5.)

E. Komatsu: Hamburger Sternwarte (Hamburg, Germany, 7.5.)

E. Komatsu: HEP/Astro Results Forum (online, 6.6.)

E. Komatsu: Asia Pacific Center for Theoretical Physics (Pohang, Korea, 19.9.)

E. Komatsu: Zhejiang University (Hangzhou, China, 30.10.)

N. Lahén, Invited seminar “Mergers all the way down building massive star clusters in dwarf galaxy starbursts”, Stockholm University, Stockholm, Sweden, 29 August

N. Lahén, Invited seminar “Unravelling the Formation of Globular Clusters in Low-metallicity Environments”, University of Seoul, Seoul, South Korea, 13 June 2025

I. Millan Irigoyen: Institute of Cosmology and Gravitation. University of Portsmouth. 05.03.2026

R. Pakmor: “Connecting the fastest stars in the Galaxy to exploding white dwarfs”, AIP Potsdam, 25.6.25

A. Rantala: University of Seoul, (Seoul, South Korea, 13.06.2025)

F. Schmidt: Cosmology from galaxy clustering: field-level vs summaries USM Colloquium, Munich May 2025

V. Springel: Max Planck Institute for Plasma Physics (Garching, Germany, 28.3.)

V. Springel: University of Michigan (Ann Arbor, USA, 10.4.)

V. Springel: Czech Academy of Sciences (Prague, Czechia, 5.6.)

V. Springel: University of Mainz (Mainz, Germany, 8.7.)

V. Springel: Leibniz Institute for Astrophysics Potsdam (Potsdam, Germany, 6.11.)

S. H. Suyu: Monash University, (Melbourne, Australia, 9.1.2025)

S. H. Suyu: CosmoVerse online seminar, (5.2.2025)

S. H. Suyu: Maynooth University, (Maynooth, Ireland, 7.3.2025)

S. H. Suyu: Black Hole Initiative, Harvard University (Cambridge, USA, 24.3.2025)

S. H. Suyu: University of Heidelberg, cosmology seminar, online (22.4.2025)

S. H. Suyu: Max Planck Institute for Gravitational Physics, (Hannover, Germany, 9.7.2025)

S. H. Suyu: California Institute of Technology, (Pasadena, USA, 11.8.2025)

S. H. Suyu: University of Hong Kong, (Hong Kong, SAR, 26.9.2025)

A. Vani: University of Zurich, Astronomy department

A. Vani: Vatican Observatory

- A. Vani: Baryon pasting collaboration
 A. Vani: Probing galaxy number density, sizes, and surface densities in L-GALAXIES, LGalaxies seminar series
 A. Vigna-Gomez: ISTA Seminar, (Vienna, Austria, 29.04.2025)
 A. Vigna-Gomez: KU Leuven, (Leuven, Belgium, 16.01.2025)
 M. Warkentin: “The Galactic Conformity Signal” (L-GALAXIES-Workshop, Berlin, Germany, 17.10.2025)

4.4 Eingeladene Vorträge

- A. Acharya: New simulations for new observations at the Epoch of Reionization: from SKA to ALMA (ESO Garching, Germany, 06.08.25)
 N. Anau Montel: The International Biomedical and Astronomical Signal Processing (BASP) Frontiers Conference 2025, 26 – 31 January, 2025, Villars-sur-Ollon, Switzerland. Talk title: Autoregressive Modelling in Simulation-Based Inference for High-Dimensional.
 N. Anau Montel: IAIFI (Institute for Artificial Intelligence and Fundamental Interactions) summer workshop 2025, 11 – 15 August, 2025, Cambridge (MA), USA. Talk title: Bridging Legacy and Modern Inference with SBI in Astrophysics
 F. Arrigoni Battaia: Review on AGN imprints on the CGM (MIAPP, Garching, 10.03-4.04)
 A. Basu: ESO, Garching, “Sources of EoR and their impact on IGM”, April, 2025
 E. Churazov: Contents of the Fermi Bubbles and Related Topics: The North Polar Spur and The Sphinx by Edgar Allan Poe (Green Bank, USA, 5-7.05.25)
 E. Churazov: Magnetic Fields and Cosmic Rays across Diverse Scales: What’s Next?: Non-thermal filaments in clusters. (Boston, USA, 8-12.09.25)
 E. Churazov: Merging cluster workshop: Non-thermal filaments in clusters: Dynamical state of the Perseus cluster. eROSITA view. (Seoul, Korea, 27-30.10.25)
 B. Ciardi: The Epoch of Helium Reionization (Sesto, Italy, 13.-17.01)
 B. Ciardi: Probing the IGM with the Ly α Forest and the 21cm Line (Trieste, Italy, 19.-23.05)
 B. Ciardi: Helium Reionization (Trieste, Italy, 19.-23.05)
 P. Diego-Palazuelos: Cosmology on the steep rise “Cosmic birefringence: searching for parity-violating physics with the CMB polarization”, (Sesto, Italy, 03.-07.02.2025)- (invited talk)
 P. Diego-Palazuelos: Parity Violation from Home 2025 “Cosmic birefringence from the Atacama Cosmology Telescope data release 6”, (online, 18.-21.11.2025)- (invited talk)
 T. Enßlin: Interferometric Imaging with Information Field Theory at “Science and Technology with the Wetterstein Millimeter Telescope”, Zugspitze, Garmisch-Partenkirchen, Germany (24.06.2025)
 T. Enßlin: Information Field Theory: Concepts and Astrophysical Application Applications at IAUS 391, UniversAI: Exploring the Universe with Artificial Intelligence, Athens, Greece (02.06.2025)
 T. Enßlin: Achieved information gain as a sustainability measure at Shaping the Digital Future or ErUM Research: Sustainability & Ethics, Aachen, Germany (30.07.2025)
 T. Enßlin: Time-Domain Sky Signals with Information Field Theory at the Restless Universe, Görlitz, Germany (14.09.2025)
 T. Enßlin: Information Field Theory at NETWORK STUDIO Astrophysics, TU Dresden, Germany (29.09.2025)
 T. Enßlin: Milky Way Atlas at IA-FORTH Heraklion, Greece (06.10.2025)
 T. Enßlin: Information Field Theory at Politechnika Wrocławska, Poland (23.10.2025)
 T. Enßlin: Information Field Theory: Concepts and Astrophysical Applications at Center for Advances Systems Understanding (CASUS) Görlitz, Germany (12.11.2025)
 T. Enßlin: Bayesian Basics at sys2025: Systematic Errors across the Sciences – Statistics and Data Science at University of Alabama, Huntsville, Alabama, US (16.11.2025)
 A. Genina: EAS 2025, “Dwarfs, tides and the Milky Way”, (Cork, Ireland, 23.-24.06.2025)- (invited talk)
 R. Glas: “Stellar Populations and their Explosions: Bridging the Gap” (at Ringberg Castle

- in November 2025) (contributed talk)
- M. Gronke: AIP Thinkshop (Potsdam, Germany)
- J. Jäger: Dust formation and destruction in a simulated low metallicity starburst (Helsinki, Finland, 28.-30.07.2025)
- H.-Th. Janka: Stellar black hole formation and detection (Kyoto, Japan, 24.-28.03.2025)
- H.-Th. Janka: An Extraordinary Journey Into The Transient Sky (Padova, Italy, 1.-4.04.2025)
- H.-Th. Janka: HEAVYMETAL IV: Neutron star mergers and the origin of the r-process (Ystad, Sweden, 5.-9.05.2025)
- H.-Th. Janka: SN2025gw: First IGWN Symposium on Core Collapse Supernova Gravitational Wave Theory and Detection (Warsaw, Poland, 21.-25.07.2025)
- H.-Th. Janka: One Hundred Years of Supernova Science: Celebrating the discovery of supernovae by Knut Lundmark in 1925 (Stockholm, Sweden, 18.-22.08.2025)
- E. Komatsu: CMB@60 (Turin, Italy, 28.-30.5.)
- E. Komatsu: Axions in Stockholm 2025 (Stockholm, Sweden, 30.6.-4.7.)
- E. Komatsu: Opening Symposium: Max Planck-IAS-NTU Center (Taipei, Taiwan, 1.-3.9.)
- N. Lahén, Invited talk “Mergers all the way down simulating globular cluster origins in dwarf galaxy starbursts”, Advancing massive black hole modelling across galactic scales, University of Helsinki, Helsinki, Finland, 28-30 July 2025
- N. Lahén, Invited talk “Mergers all the way down: building massive star clusters in dwarf galaxy starbursts”, IAU Symposium 398 & MODEST-25: Compact Objects and Binaries in Dense Stellar Systems, Seoul, South Korea, 16-20 June, 2025
- N. Lahén, Invited talk “Massive star cluster formation in a galactic context”, Star Formation, Stellar Feedback, and the Ecology of Galaxies: Celebrating John Bally’s lifetime in Astronomy, Visegrád, Hungary, 26-30 May, 2025
- N. Lahén, Invited review “Results and Challenges about Cluster Formation, Clumpy Structures and Cluster Early Evolution”, Bridging scales: star clusters and their host galaxies from the local to the high-z Universe, Matera, Italy, 1-5 September, 2025
- J.-Z. Ma: Horizons for Optical Long Baseline Interferometry Workshop, Invited review talk ‘Massive Binary Science in the 2040s’ (Paris, France, 27.-30.1.2025)
- R. Pakmor: “Realisations and Superstars. Un update on the Auriga model and Superstars method”, Auriga Superstars Meeting Durham, UK, 15.7.25
- R. Pakmor: “WDWD mergers: an update”, HEAVYMETAL IV, Ystad, Sweden, 7.5.25
- R. Pakmor: “The Diverse Fates of Exploding White Dwarfs”, One hundred years of supernova science, Stockholm, Sweden, 19.8.25
- A. Rantala: IAU Symposium 398 / MODEST-2025, (Seoul, South Korea, 16.-20.06.2025)- (invited talk)
- A. Rantala: Advancing massive black hole modelling across galactic scales, (Helsinki, Finland, 28.-30.07.2025)- (invited talk)
- A. Rantala: Loss cones at Como, (Como, Italy, 15.-17.09.2025)- (invited to lead a 1-hour discussion session)
- F. Schmidt: Cosmology from galaxy clustering: field-level vs summaries Conference “Cosmology on the Steep Rise”, Sesto, Italy February 2025
- F. Schmidt: Cosmic Rulers: LSS Observables in GR at second order MIAPbP workshop “Big Data, Big Questions” May 2025
- F. Schmidt: Large-Scale Structure Observables: an Overview CosmoFondue Conference, Geneva June 2025
- F. Schmidt: Cosmology from galaxy clustering: field-level vs summaries CoBALT Workshop Institut Pascal, Saclay June 2025
- F. Schmidt: Cosmology from galaxy clustering: field-level vs summaries Understanding cosmological observations August 2025
- F. Schmidt: A Universe made of black holes? Alpine cosmology workshop July 2025
- F. Schmidt: Non-Gaussianity in Large-Scale Structure Learning the Deep Mysteries of Nature with Cosmology, Fiera di Primiero, Italy September 2025
- F. Schmidt: Monodromic Dark Energy and DESI Cambridge-LMU Workshop, USM, Munich September 2025
- M. Smith: Invited review “The Theory of Galactic Winds” at 18th Potsdam Thinkshop

“The role of feedback in galaxy formation” (Potsdam, Germany, 14.-18.07.25)
 V. Springel: Supercomputer Simulations of the Universe (EAS Annual Meeting, Cork, Ireland, 23.-27.6)
 V. Springel: Cosmological simulations of structure formation: Successes, Challenges and Opportunities (Tokyo, Japan, 10.-12.3.)
 V. Springel: L-Galaxies in Gadget-4: Semi-analytic mock galaxy catalogues for new, very large simulations (Berlin, Germany, 15.-17.10.)
 S. H. Suyu: VLT, Supernovae, Bruno @65 & H0 @? conference, “Cosmology with strongly lensed supernovae”, (European Southern Observatory, Garching, Germany, 7.-11.4.2025)
 S. H. Suyu: Second International Conference on the Physics of the Two Infinities, “The Hubble Tension”, (Tokyo, Japan, 17.-21.11.2025)
 A. Vani: Talk: The multiscale environment of AGN across cosmic time
 A. Vigna-Gomez: Open Problems in Astrophysical Dynamics, “Massive Multiple-Star Systems”, (Copenhagen, Denmark, 10.-13.06.2025)
 M. Werhahn: Elucidating the Material Circulation in the Early Universe, “Constraining Cosmic Ray Feedback in Galaxy Evolution”, March 10-12, 2025, University of Tokyo, Japan (invited talk)

4.5 Öffentliche Vorträge:

A. Acharya: Podcast on “Listening to the Early Universe” organised by ZetaGravit, India (12.07.25)
 T. Braun: offered a planetarium show to approx 20 school students in January.
 T. Braun: offered a station for the Girls Day in April.
 D. Calderón: participated in the activity “Lunch with an Astrophysicist” at Max Planck Institute for Astrophysics with a group of approx. 20 university students from the USA in May 2025.
 T. Enßlin: oha! Abenteuer Wissenschaft in Görlitz (20.9.2025) R. Glas: Planetarium shows for several visitor groups (school classes etc.) with group sizes of ca. 15 to 25 people
 J. Hein: Planetarium presentations
 E. Herwig: offered a station for the Girls Day in April.
 E. Komatsu: Bando Kobe Science Museum (Kobe, Japan, 2.3.)
 D. Kresse: active member of MPA’s planetarium group, giving regular shows for national and international visitor groups and school classes (presenter of 4 shows in 2025 so far; help with setting up/down of the dome for other shows)
 D. Kresse: help on Girl’s Day (answering science questions and on studies/careers in astrophysics)
 M. Lujan Niemeyer: will participate in a podcast of the Bayerischer Rundfunk on 25. October 2025.
 J.-Z. Ma: Two public talks at X-Institute summer school for first-year bachelor students, China (07.2025)
 E. Mamuzic: contribution to science article: “Focus on the universe”, June 2025
 E. Müller: Gymnasium Königsbrunn (25.11.)
 A. Rantala and Schmidt, F.: MPA Research Highlight May 2025: “A Universe made of black holes?”
 F. Schmidt: Girl’s Day (April 2025)
 F. Schmidt: c’t Artikel zum Thema Dunkle Energie (Mai 2025)
 F. Schmidt: Podcast Radiowissen (August 2025)
 F. Schmidt: Interview für Seminararbeit, Schüler an Fachoberschule FOSBOS.
 S. Schnauck: MPA Planetarium Shows
 V. Springel: Fitting the Universe into a Supercomputer, DLR Optoelectronics Workshop 2025 (Backnang, Germany, 7.10.)
 V. Springel: Simulierte Universen: Ursprung und Schicksal unserer Milchstraße, Bad Honnefer Industriegespräche (Bad Honnef, Germany, 6.2.)
 V. Springel: Simulated Universes: Origin and Fate of Our Milky Way (University of Michigan, Ann Arbor, USA, 9.4.)

R. valli: gave a colloquium to a group of approx 25 high school students visiting the institute in April 2025

Prof. Dr. Eiichiro Komatsu (Geschäftsführender Direktor)