

Garching

Max-Planck-Institut für Astrophysik

Karl-Schwarzschild-Straße 1, Postfach 1317, 85741 Garching,
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1 Einleitung

1.1 Kurzgeschichte

Das 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.

2 Personal und Ausstattung

2.1 Personalstand

Direktoren und Professoren:

Guinevere Kauffmann [-2013], Eiichiro Komatsu [-2208] (Geschäftsführung seit 1.1.2015).
R. Sunyaev [-2244], S.D.M. White [-2211] (Geschäftsführung bis 31.12.2014).

Wissenschaftliche Mitarbeiter:

M. Anderson, Y. Bahe, A. Bauswein (bis 31.12.) G. Di Bernardo (seit 20.10.), A. Ford (seit 1.9.), M. Gabler, M. Gaspari, P. Girichidis, F.A. Gomez (seit 8.10.), J. Guilet, H. Hammerle, K. Helgason (seit 1.10.), B. Henriques, S. Hilbert, G. Hütsi (bis 30.9.), J. Johansson (bis 26.9.), A. Jones (seit 1.12.), O. Just, R. Khatri, S. Khedekar (bis 20.9.), Jaiseung Kim, D. Kruijssen, T.Y. Lam (bis 31.8.), G. Lemson (bis 30.9.), N. Lyskova (since 21.2.), Z. Magic (15.5.-31.8.), M. Miller-Bertolami, S. Mineo (seit 1.9.) R. Moll (bis 31.10.), A. Monachesi (seit 8.10.), P. Montero, B. Müller (bis 31.1.), M. Nielsen, U. Nöbauer (seit 1.7.), L. Oser (seit 1.10.), A. Pawlik, Th. Peters (seit 1.10.), V. Prat, D. Prokhorov (bis

30.9.), A. Rahmati (bis 31.7.), M. Reinecke, T. Rembiasz (1.6.-30.9.), S. Roychowdhury, F. Schmidt, X. Shi, R. Smith (bis 30.9.), C. Spiniello, H. Spruit (bis 28.2.), A. Sternberg (bis 15.3.), A. Summa (seit 1.4.), T. Tanaka (bis 31.8.), S. Taubenberger, V. Vacca (seit 1.1.) S. Vegetti, M. Viallet, J. von Groote (seit 1.12.), C. Wagner (bis 30.9.), J. Wang (bis 30.4.), A. Weiss, A. Wongwathanarat (bis 31.7.).

Doktoranden:

A. Agrawal (seit 1.9.), R. Andrassy, H. Andresen, A. Arth (bis 31.7.), M. Aumer (bis 31.5.), V. Böhm, R. Bollig, M. Bugli, H.L. Chen, C.T. Chiang, A. Chung, B. Ciambur (terminated 31.3.), M. Compostella (seit 1.11.), D. D’Souza, R. D’Souza, S. Dorn, P. Edelmann (bis 31.12.), T. Ertl, A. Gatto, M. Greiner, F. Hanke (bis 31.5.), W. Hao, N. Hariharan, S. Heigl (seit 10.9.), C.H. Hu, M.L. Huang, H.Y. Ip (seit 1.9.), I. Jee, A. Jendreieck (bis 30.9.), S. Jia (seit 1.1.), K. Kakiichi, F. Koliopanos, A. Kolodzig, S. Komarov, C. Laporte (bis 31.5.), T. Lazeyras (seit 7.10.), N. Lyskova (bis 20.2.), Q. Ma, Z. Magic (bis 31.8.), G. Mazur (seit 1.9.-30.11.), T. Melson, M. Molaro, U. Nöbauer (bis 30.6.), D. Oliveira (bis 30.6.), A. Pardi, E. Plumbi, S. Rau (bis 14.5.), B. Röttgers, M. Rybak, M. Sasdelli, A. Schmidt (seit 1.11.), M. Selig, Shi Shao (bis 14.10.), M. Soraism, T. Steininger (seit 1.10.), I. Thaler, J. von Groote (bis 31.5.), D. Vrbanec, M. Wadepuhl, G. Wagstaff (seit 1.9.) T. Woods, P. Wullstein (bis 31.12.), R. Yates (bis 28.2.), Luo Yu.

Diplomanden, Bachelor- und Masterstudenten:

A. Agrawal (bis 31.8.), R. Ardevol (bis 31.3.), T. Denk (bis 28.2.), M. Eisenreich (bis 30.9.), A. Gessner (bis 28.2.), T. Pangerl (bis 30.9.), V. Rozov (bis 30.9.), A. Schmidt (bis 30.9.), N. Schwarz (seit 1.5.)

Technische Mitarbeiter

Systemadministratoren:

Heinz-Ado Arnolds, Bernt Christandl, Norbert Grüncer (bis 31.10.), Hans-Werner Paulsen, Andreas Weiß (seit 1.6.).

PLANCK Gruppe:

U. Dörl (bis 31.12.), W. Hovest (bis 31.12.), J. Knoche,

Sekretariat und Verwaltung:

Maria Depner [-2214], Julia Dreher (seit 1.5.), Sonja Gründl [-2017], Gabriele Kratschmann [-2296] Cornelia Rickl (Skr. Geschäftsführung) [-2201].

Bibliothek

Elisabeth Blank, Elisabeth Chmielewski (bis 31.12.), Christiane Hardt.

Ausgeschieden:

Elisabeth Chmielewski (Bibliotheksleitung), Norbert Grüner (Systemadministrator), Kate O’Shea (Sekretärin), Dr. Henk Spruit (Wissenschaftler)

2.2 Personelle Veränderungen

Mike Anderson: erhielt fuer seine Dissertation den “ProQuest Distinguished Dissertation Award” von der Rackham Graduate School an der University of Michigan.

Eugene Churazov: erhielt den “Sir Harrie Massey award”

Marat Gilfanov wurde von der Univ. Amsterdam (wissenschaftliche Fakultät) zum außerordentlichen Professor ernannt

Rashid Sunyaev: erhielt den “Lodewijk Woltjer Award” von der EAS, European Astronomical Society

A. Weiss: Honorarprofessur an der Ludwig-Maximilian Universität München.

Tyrone Woods: bekam den Kippenhahn Preis für seine Publikation “He II recombination lines as a test of the nature of SN Ia progenitors in elliptical galaxies”

2.3 Gäste

Raul Angulo (CEFCA, Spanien) 6.8.-6.9.; Lucie Augustovicova (IOC, Prag) 7.7.-19.7.; Eliana Amazo-Gomez (Univ. Nacional Columbia) bis 28.2.; Patricia Arevalo (Univ. Cat., Chile) 1.7.-31.7.; Thomas W. Baumgarte (Bowdoin Coll. Brunswick USA) 1.6.-4.7.; Alexander Beck (USM, München) 1.7.-31.12.; Andrei Beloborodov (Columbia Univ.) 1.7.-12.7.; Andrey Belyaev (St. Petersburg) 8.1.-8.2. und 1.11.-30.11.; Sandra Benitez (Cidade Univ. Brasilien) 19.10.-9.11.; Sergey Blinnikov (ITEP, Moskau) 31.3.-13.4.; Mia Bovill (Santiago, Chile) 14.1.-31.1.; Pavel Denissenkov (Victoria, Kanada) 6.6.-5.7.; Ivan de Martino (Salamanca Univ. Spanien) 1.2.-30.4.; Rafael De Souza (KASI, Korea) 8.3.-8.4.; und 7.7.-27.8.; Eliana Amazo Gomez (Univ. of Bogota) bis 28.2.; Hannes Grimm-Strele (TU Wien) 15.1.-30.4.; Jian Fu (Shanghai, Obs.) 5.3.-14.5.; Kumar Hazra (APCTP, Korea) 24.8.-6.9.; Tobias Heinemann (KITP Santa Barbara) 1.9.-30.9.; Michaela Hirschmann (IAP, Paris) 13.10.-24.10.; Nail Inogamov (Landau Inst. Moskau) 15.7.-31.8.; Emille Ishida (Sao Paulo, Brasilien) 1.1.-31.12.; Iyudin, Anatoli (ITEP, Moskau) 2.2.-16.2.; Shi Jia (Yunnan Obs. China) 1.1.-31.12.; Yipeng Jing (Shanghai Observ.) 13.6.-8.8.; Ildar Khabibullin (IKI Moskau) 30.1.-28.2.; und 10.7.-18.8.; Damian Kwiatkowski (Univ. Warschau) 1.7.-31.8.; Li-Xin Li (Shanghai) 1.8.-31.8.; Yu Luo (Purple Mountain Observ., China) bis 30.4.; Paolo Mazzali (Univ. of Liverpool) 4.9.-4.10.; Pavel Medvedev (IKI Moskau) 30.1.-28.2.; und 10.7.-22.8.; Ilya Mareminskiy (IKI, Moskau) 10.7.-18.8.; Vassili Mewes (Univ. of Valencia) 7.1.-7.2.; Alejandro Munoz (PUC Santiago, Chile) 12.5.-12.6.; Yoshiaki Naito (Univ. Tokio) 25.10.-10.11.; Atsushi Naruko (Kyoto Univ. Japan) 26.5.-8.6.; Julio Navarro (Victoria, Kanada) 1.10.-31.12.; Joshua Dominik Orth (Uni Würzburg) 1.9.-26.9.; Nelson Padilla (PUC, Santiago, Chile) bis 31.3.; Dante Paz (Osserv. Astron. Cordoba, AR) 10.1.-10.3.; Andre Ruiz (Osserv. Astron. Cordoba, AR) 10.1.-10.3.; Sergei Sazonov (IKI, Moskau) 10.7.-15.8.; Nicholas Sanchez (Univ. of Valencia) 6.1.-31.1.; Nikolai Shakura (Sternberg Astron. Inst. Moskau) 1.8.-30.8.; Volker Springel (HITS, Heidelberg) 2.6.-2.7.; Yudai Suwa (JSPS, Tokio) seit 1.4.; Assaf Sternberg (Cluster, TUM) seit 15.3.; Bryan Terrazas (Univ. of Michigan) 4.8.-16.8.; Scott Tremaine (IfA, Princeton USA) 29.5.-26.6.; Paulina Troncoso (PUC Santiago, Chile) 6.1.-22.1.; und 16.2.-16.3.; Victor Utrobin (ITEP, Moskau) 23.10.-22.12.; Naito Yoshiaki (Tokyo Univ. Japan) 25.10.-17.11.; Lev Yungelson (RAS, Moskau) 26.03.-25.04.;

2.4 Gebäude und Bibliothek

Die Bibliothek befindet sich im Astrogebäude und wird von Wissenschaftlern zweier Institute genutzt, das Max-Planck-Institut für Astrophysik (MPA) und Max-Planck-Institut für extraterrestrische Physik (MPE). Die Bibliothek besitzt aktuell (2014) ca. 50.000 Bücher und Zeitschriftenbände, sowie Abonnements für ca. 180 Print Periodika und managt den Zugriff für ca. 500 elektronischen Periodika. Seit dem 1.1.2010 wird ein neues Publikationsrepositorium “MPG.PuRe” verwendet, das von der Max-Planck Digital Library in Zusammenarbeit mit dem Fachinformationszentrum Karlsruhe entwickelt worden ist. Seit dem 1.1.2015 sind zwei Vollzeit Bibliothekarinnen in der MPA/MPE Bibliothek beschäftigt (Elisabeth Blank und Christiane Hardt).

3 Lehrtätigkeit, Prüfungen und Gremientätigkeit

3.1 Lehrtätigkeiten

T. Enflin, SS 2014, LMU München

W. Hillebrandt WS 2013/2014 and WS 2014/2015, TU München

H.-Th. Janka, WS 2013/2014 and SS 2014, TU München

G. Kauffmann, WS 2013/2014 and SS 2014 LMU, München

E. Müller, WS 2013/2014 and SS 2014, TU München

H. Ritter, WS 14/15, LMU München

A. Weiss, SS 2014, LMU München

Kurz-Vorlesungen

M. Gilfanov: “High Energy Processes and Objects” (IMPRS on Astrophysics, Garching, 7.4.–11.4.)

E. Komatsu: “Dark Energy Probes” (School on “Challenges in Modern Cosmology: Dark Matter and Dark Energy,” International Institute of Physics, Natal, Brazil, 9.5.-9.5); – “Recent Results from the CMB experiments” (Schule für Astroteilchenphysik 2014, 8.10-16.10)

H. Spruit: “Probability, chance, risk: statistics in daily life and in science” (Pontificia Universidad Catolica de Chile, Santiago, 27.5.–11.6.)

R. Sunyaev: - short lectures at different Univ. in China (9.5.-1.6.); – Institute of High Energy Physics, CAS, Beijing; – Kavli Institute of Astronomy and Astrophysics at Peking University; – Tsinghua University, Beijing; – National Astronomical Observatory of China, Beijing; – Shanghai Astronomical Observatory, CAS, Shanghai; – Lodewijk Woltjer Lecture, European Astronomical Society, EWASS, (Geneva 1.7.-4.7.)

A. Weiss: “Stellar Structure and Evolution” IMPRS on Astrophysics, Garching, 20.–24.1.

3.2 Gremientätigkeit

Ciardi, Benedetta: Mitglied des Internationalen Prüfungskomitee, Shanghai Astronomical Observatory; – Mitglied des Redaktionsausschuss von PASA (Publications of the Astronomical Society of Australia); Mitglied des Wissenschaftsrat der IAU Kommission 47 (Kosmologie); – Vorsitzende des Wissenschaftlichen Rats von GLOW (German LONG Wavelength) Konsortium; – Projektleiterin der Arbeitsgruppe LOFAR am MPA; (Publikation der Astronomical Society of Australia) – Mitglied der SKA Arbeitsgruppe

Enßlin, Torsten: Rapporteur for the Planck Editorial Board; – Project head of the MPA Planck Analysis Centre; – Head of the Kippenhahn-Price Committee

Hillebrandt, Wolfgang: - Member, International Advisory Board, Oskar Klein Centre, Stockholm - Member, Senatsausschuss für Wettbewerb (SAW), Leibniz Society - Member, Evaluation Panel, Prtnership foe Advanced Computing in Europe (PRACE)

Janka, Hans-Thomas: Editorial Board, Journal of Cosmology and Astroparticle Physics (JCAP), IOP Publishing and SISSA

Komatsu, Eiichiro: Member, Review panel of the Planck mission

Kauffmann, Guinevere: Nominations Committee, Aspen Center for Physics; – Selection Committee, Max Planck Junior Research Groups; – International Advisory Board, Humboldt Foundation

Müller, Ewald: Member, SOC, ASTRONUM-2015, Avignon, France; – Editor in chief, Living Reviews in Computational Astrophysics – Vorstand of the DFG SFB-Transregio “Gravitationswellenastronomie” – Mitglied des Benutzerkomitees, Rechenzentrum Garching (RZG)

Weiss, Achim: Mitarbeitervertreter der CPT Sektion der Max-Planck-Gesellschaft (bis Juni 2014)

4 Wissenschaftliche Arbeiten

Für Informationen zu den wissenschaftlichen Arbeiten unseres Instituts, besuchen Sie bitte unsere Webseite unter: <http://www.mpa-garching.mpg.de> und klicken Sie *Über das Institut* und *Jahresberichte* an. Sollten Sie kein Internet haben, können Sie gerne kostenlos einen Jahresbericht unter der Telefon-Nummer 089/30000-2214 anfordern.

5 Akademische Abschlussarbeiten

5.1 Diplomarbeiten

Abgeschlossen:

Aniket Agrawal: Towards an Analytical Model for Redshift Space Distortions. Ludwig-Maximilians-Universität München (2014).

Ricard Ardevol: Constraining the BH-NS merger rate by r-process element production. Technische Universität München (2014).

Tobias Denk: Runaway instability in accretion discs: numerical simulations in spherical polar coordinates. Technische Universität München (2014).

Maximilian Eisenreich: Black Hole Feedback in Elliptical Galaxies. Technische Universität München (2014).

Alexandra Gessner: Constraining the Crab Progenitor: Multidimensional Simulations of Neutron Star Kicks in Electron-Capture Supernovae. Ludwig-Maximilians-Universität München (2014).

Andreas Schmidt: Feedback from Supernova and Active Galactic Nuclei in Gas-Rich Discs at High Redshift. Ludwig-Maximilians-Universität München (2014).

5.2 Dissertationen

Abgeschlossen:

Michael Aumer: Simulating the formation and evolution of disc galaxies in a Λ CDM universe. Ludwig-Maximilians-Universität München.

Philipp Edelmann: Coupling of nuclear reaction networks and hydrodynamics for application in stellar astrophysics. Technische Universität München.

Florian Hanke: Two- and three-dimensional simulations of core-collapse supernova explosions of massive stars applying neutrino hydrodynamics. Technische Universität München.

Lorenz Hüdepohl: Neutrinos from the formation, cooling, and black hole collapse of neutron stars. Technische Universität München.

Henrik Junklewitz: Statistical inference in radio astronomy. Ludwig-Maximilians-Universität München.

Chervin Laporte: Evolution of clusters and large-scale structures of galaxies. Ludwig-Maximilians-Universität München.

Natalya Lyskova: Mass determination of elliptical galaxies. Ludwig-Maximilians-Universität München (2014).

Zazralt Magic: Theoretical stellar atmosphere models for cool stars. Ludwig-Maximilians-Universität München (2014).

Ulrich Nöbauer: A Monte Carlo approach to radiation hydrodynamics in stellar outflows. Technische Universität München (2014).

Laura Porter: Towards modelling ultracool dwarfs. Ludwig-Maximilians-Universität München (2014).

Irina Thaler: Solar magnetohydrodynamics. University of Amsterdam (2014).

Marcel van Daalen: Correlation functions from the Millennium XXL simulation. Ludwig-Maximilians-Universität München (2014).

Janina von Groote: General Relativistic Multi Dimensional Simulations of Electron Capture Supernovae. Technische Universität München (2014).

Stefan, Rau: Gravitational lensing studies of galaxy cluster halos. Ludwig-Maximilians-Universität München (2014).

Marco Selig: Information Theory Based High Energy Photon Imaging. Ludwig-Maximilians-Universität München (2014).

Rob Yates: The chemical evolution of galaxies in semi-analytic models and observations. Ludwig-Maximilians-Universität München (2014).

Laufend:

Aniket Agrawal: An Analytical Model for Redshift Space Distortions. Ludwig-Maximilians-Universität München.

Robert Andrassy: Convective overshooting in stars. University of Amsterdam.

Haakon Andresen: Gravitational waves from core collapse supernova. Ludwig-Maximilians-Universität München.

Ricard Ardevol: Nucleosynthesis in Neutron Star-Neutron Star and Black Hole-Neutron Star mergers. Technische Universität München.

Vanessa Böhm: Gravitational Lensing of the Cosmic Microwave Background: Reconstruction of Deflection Potential and unlensed Temperature Map using Information Field Theory. Ludwig-Maximilians-Universität München.

Robert Bollig: Long term cooling studies of proto-neutronstars with full neutrino flavour treatment and muonisation. Technische Universität München.

Matteo Bugli: Study of viscous accretion disks around Kerr black holes. Technische Universität München.

Chi-Ting, Chiang: Sparse sampling and position-dependent power spectrum: new and efficient approaches to galaxy redshift surveys and searches for non-Gaussianity. Ludwig-Maximilians-Universität München.

Andrew Chung: High-redshift Lyman- α 945; Emitters. Ludwig-Maximilians-Universität München.

Durand D'Souza: Radiative levitation and other processes in massive stars. Ludwig-Maximilians-Universität München.

Richard D'Souza: Stellar Halos of Galaxies. Ludwig-Maximilians-Universität München.

Maximilian Eisenreich: The wondrous multi-phase ISM of elliptical galaxies. Ludwig-Maximilians-Universität München.

Thomas Ertl: Progenitor-remnant connection of core-collapse supernovae. Technische Universität München.

Sebastian Dorn: Non-Gaussianity and inflationary models. Technische Universität München.

Andrea Gatto: The impact of stellar feedback on the formation and evolution of molecular clouds. Ludwig-Maximilians-Universität München.

Mahsa Ghaempanah: Information field theory for INTEGRAL gamma ray data. Ludwig-Maximilians-Universität München.

Maksim Greiner: Galactic tomography. Ludwig-Maximilians-Universität München.

- Wei Hao: Supermassive black hole binaries in Galaxy centres. Ludwig-Maximilians-Universität München.
- Nitya Hariharan: Numerical Developments of the Radiative Transfer code CRASH. Technische Universität München.
- Chia-Yu, Hu: A new star formation recipe for large-scale SPH simulations. Ludwig-Maximilians-Universität München.
- Mei-Ling Huang: Radially resolved star formation histories of disk galaxies. Ludwig-Maximilians-Universität München.
- Inh Jee: Measuring angular diameter distances of strong gravitational lenses. Ludwig-Maximilians-Universität München.
- Andressa Jendrieck: Stellar Parameter Estimation for Kepler Stars. Ludwig-Maximilians-Universität München.
- Kakiichi Koki: The high redshift universe: galaxy formation and the IGM. Ludwig-Maximilians-Universität München.
- Filippos Koliopoulos: Radiation processes in compact X-ray sources. Ludwig-Maximilians-Universität München.
- Alexander Kolodzig: Large-scale structure studies using AGN in X-ray surveys – Challenges from XBOOTES and prospects for eROSITA. Ludwig-Maximilians-Universität München.
- Sergey Komarov: Physics of Intracluster Medium. Ludwig-Maximilians-Universität München.
- Tobias Melson: Implementation of a two-moment closure scheme for neutrino transport into the Yin-Yang grid environment for three-dimensional simulations of core-collapse supernovae with the Prometheus-Vertex code. Technische Universität München.
- Margherita Molaro: X-ray binaries' contribution to the Galactic ridge X-ray emission. Ludwig-Maximilians-Universität München.
- David Oliveira: Cosmology and Dark Matter Dynamics with a GPU accelerated Tree Code. Ludwig-Maximilians-Universität München.
- Anabele Pardi: The Dynamics and Evolution of the Interstellar Medium Ludwig-Maximilians-Universität München.
- Else Pllumbi: Nucleosynthesis studies for supernova and binary merger ejecta. Technische Universität München.
- Bernhard Röttgers: AGN feedback in cosmological simulations and the comparison to observations. Ludwig-Maximilians-Universität München.
- Michele Sasdelli: Principal Components Analysis of type Ia supernova spectra. Ludwig-Maximilians-Universität München.
- Shao Li: Understanding the connection between AGNs and their host galaxies. Ludwig-Maximilians-Universität München.
- Andreas Schmidt: Simulation of the large-scale Lyman-alpha forest. Ludwig-Maximilians-Universität München.
- Shao Shi: Disk dynamics in live halos. NAOC, China.
- Monika Soraism: Progenitors of Type Ia Supernovae. Ludwig-Maximilians-Universität München.
- Dijana Vrbancic: Cross-correlation of Lyman Alpha Emitters & 21-cm signal from the Epoch of Reionization. Ludwig-Maximilians-Universität München.
- Tyrone Woods: The Progenitors of Type Ia Supernovae. Ludwig-Maximilians-Universität München.

6 Tagungen, Projekte am Institut und Beobachtungszeiten

6.1 Tagungen und Veranstaltungen

G. Börner, C. Li, X. Kang, et al. 10th Sino-German Conference “Galaxies and Cosmology”, 18. - 23. Mai 2014

R.S. de Souza, E.E.O. Ishida and A. Krone-Martins, Summer Residence Program – “Cosmostatistics Initiative” 17.-24. August 2014

W. Hillebrandt, H.-Th. Janka, M. Kromer, F. Röpke Splinter meeting “Explosive stellar transients” at the Annual Meeting of the Astronomische Gesellschaft, 23.-24. September 2014

Alexander Kolodzig: Clustering Measurements of Active Galactic Nuclei, ESO-HQ, Garching, Germany, 14.-18. July 2014.

E. Komatsu, Conference “Workshop on CLASS and MontePython”, 17.-21. März 2014; – Conference “MIAPP Workshop on Cosmology After Planck”, 27.-31. Oktober 2014.

M. Kramer, N. Langer, P. Podsiadlowski, T. Tauris, W. Becker, H.-Th. Janka: Workshop “Formation and Evolution of Neutron Stars”, 5. März 2014.

J. M. D. Kruijssen: SOC co-chair of conference “Mass Assembly from Clouds to Clusters”, Sexten, Italien, 7.-11. Juli 2014.

L. Macri, W. Gieren, W. Hillebrandt, R. Kudritzki: The Extragalactic Distance Scale, MIAPP, 26. Mai -20. Juni 2014.

E. Müller, W. Hillebrandt: 17th Workshop on Nuclear Astrophysics, Schloß Ringberg Tegernsee, 7. - 12. April 2014.

A. Müller, T. Enßlin et al. Interdisciplinary Workshop on “Statistical and Analysis Methods in Nuclear, Particle and Astrophysics”, 3.-11. November 2014.

T. Naab: Ringberg meeting on galaxy evolution, 12.-16. Mai 2014.

J. Rachen, T. Enßlin et al., ISSI International Team Meeting on “Bayesian modeling of the Galactic magnetic field using data from ultra-high energy cosmic ray observatories”, 8.-12. Dezember 2014.

A. Weiss (et al.) EWASS2014/SP2: “Helios and Helium: what is wrong with them?”, 1.-3. Juli 2014; und ESO workshop “Resolved and unresolved stellar populations”, 13.–17. Oktober 2014.

6.2 Beobachtungszeiten

A. Basu (NCRA-TIFR, India), S. Roychowdhury, N. Patra (NCRA-TIFR, India), 26.7–27.7, 01.8, 03.8, 24.8, Giant Metrewave Radio Telescope, The resolved radio–FIR correlation in dwarf irregular galaxies.

C. J. Cyganowski, et al. (incl. J. M. D. Kruijssen), Atacama Large Millimetre/submillimetre Array Cycle 2, Chajnantor, +Chile, Hiding in the Shadow of Giants: Low mass cores in massive (proto) clusters.

R. Foley (PI), P. Brown, et al. incl. (W. Hillebrandt and S. Taubenberger, MPA) “Understanding the Progenitor Systems, Explosion Mechanisms, and Cosmological Utility of Type Ia Supernovae” HST, 72 orbits in Cycle 22; 8 hours NOAO time.

J. B. Foster, et al. (incl. J. M. D. Kruijssen), Atacama Large Millimetre/submillimetre Array Cycle 2, Chajnantor, Chile, Resolving the Mysterious Broad-line Absorption Filaments in the Galactic Center.

M. Gaspari (MPA) as a co-I - Chandra (200 ks) “Ram-Pressure Stripping and ICM Physics in A2142”.

A. Ginsburg, et al. (incl. J. M. D. Kruijssen), Atacama Large Millimetre/submillimetre

Array Cycle 2, Chajnantor, Chile, Sgr B2 – The Proving Ground for Star Formation Theories.

G. Giovannini (IRA-INAF), L. Feretti (IRA-INAF) et al. incl. V. Vacca (MPA) 3.0h Very Large Array, NRAO, New Mexico, VLA disposition VLA/14B-011, Possible diffuse radio sources in 3 low mass clusters.

G. Giovannini (IRA-INAF), V. Vacca (MPA), L. Feretti (IRA-INFA), et al. 5.0h Very Large Array, NRAO, New Mexico, VLA disposition VLA/15A-016, Narrow-angle tail or one-sided radio sources?

E. Keto, et al. (incl. J. M. D. Kruijssen), Submillimeter Array Large Project, Mauna Kea, Hawaii, USA, The SMA Legacy Survey of the Central Molecular Zone.

J. Ott, et al. (incl. J. M. D. Kruijssen), Australia Telescope Compact Array Large Project, Narrabri, Australia, Survey of Water and Ammonia in the Galactic Center (SWAG).

A. Schrubba, J. M. D. Kruijssen, et al., Atacama Large Millimetre/submillimetre Array Cycle 2, Chajnantor, Chile, The failure of galactic star formation relations on sub-galactic scales: A direct probe of the physics of star formation.

S. Taubenberger et al., 10 hr DDT with the 2.2m Telescope of the Calar Alto Observatory, Spain, CAFOS, Spectropolarimetry of SN 2014J in M82.

V. Vacca (MPA), G. Bernardi (CFA), B. Gaensler (University of Sydney), L. Feretti (IRA-INAF), G. Giovannini (IRA-INAF), F. Govoni (OAC-INAF), M. Murgia (OAC-INAF), T. Ensslin (MPA), 20.4h Very Large Array, NRAO, New Mexico, VLA disposition VLA/14A-255, Cosmic magnetic field evolution.

6.3 Vorträge und Gastaufenthalte

Übersichtsvorträge

B. Ciardi: The first billion years of galaxies and black holes (Sexten, Italy, 30.6-4.7); – The Formation and Growth of Galaxies in the Young Universe (Obergrugl, Austria, 26.-30.4)

T.A. Enßlin: Gas in and around galaxies (Ringberg Castle 12.5.-16.5.) ; – Quantum Cosmology (Bad Honnef 28.7.); – Turbulence: in the Sky as on the Earth (Natal, Brazil 6.10.)

M. Gaspari: The X-ray Universe Symposium (Dublin, Ireland - 16.06.14); – Clusters 2014 conference (Paris, France - 23.06.14) ; – 3rd ICM Theory and Computation workshop (Copenhagen, Denmark - 12.08.14)

M. Gilfanov: Binary SMBHs, (Las Cruces, Chile, 4.3.-7.3); – The Unquiet Universe, (Cefalu, Italy, 2.6-13.6.); – Zel’dovich-100 Conference (Moscow, 16.6.-20.6.); – Quenching and quiescence, (Heidelberg, Germany, 14.7-18.7); – NuSTAR First Science, COSPAR-2014, (Moscow, Russia, 4.8-8.8); – Outflows and Accretion from White Dwarfs to Supermassive Black Holes, COSPAR-2014, (Moscow, Russia, 4.8-8.8); – Transients’ Unsolved Mysteries, (Eilat, Israel, 20.10-23.10);

W. Hillebrandt, IAS SNe Ia workshop, (Princeton, 10.2. - 12.2.) – “Explosions I have known” Stirling Colgate’s Legacy in Science, (Los Alamos, 11.8. - 13.8.); – Type Ia Supernovae: progenitors, explosions, and cosmology, (Chicago, 15.9. - 19.9.)

H.-Th. Janka: Formation and Evolution of Neutron Stars (Bonn, 5.3.); – The Structure and Signals of Neutron Stars, from Birth to Death (Florence, 24.3.-28.3.); – Symposium on Selected Topics in Astroparticle Physics (Garching, 7.11.); – INT workshop on the r-process (INT Seattle, 28.7.-1.8.); – Conclusion Workshop of SFB/TR7 “Gravitational Wave Astronomy” (Jena, 1.12.-5.12.); – MIAPP Program “Neutrinos in Astro- and Particle Physics” (Garching, 30.6.-25.7.); – SN2NS Workshop (Paris, 3.2.-5.2.); – 17th Workshop on Nuclear Astrophysics (Ringberg Castle, 7.4.-12.4.); – Swift: 10 Years of Discovery (Rome, 2.12.-5.12.); – ECT Workshop “Future Directions in the Physics of Nuclei at Low Energies” (ECT* Trento, 21.5.-23.5.); – International Conference “Explosions I have known: Stirling Colgate’s Legacy in Science” (Los Alamos, 11.8.-13.8.)

- G. Kauffmann : Ringberg Workshop on Galaxy Formation, (Tegernsee, 18.5-22.5);
- E. Komatsu: Zel'dovich-100 Conference (Moscow, 16.6.-20.6.); – The 18th Paris Cosmology Colloquium (Paris, 23.7.-25.7.)
- J. M. D. Kruijssen: A Critical Look at Globular Cluster Formation Theories: (Sexten, Italy, 14.7.-18.7.); – Star Clusters and Black Holes in Galaxies across Cosmic Time (Beijing, China, 25.8.-29.8.)
- Thorsten Naab: Galaxies in 3D across the Universe, (Vienna, 7.7. -11.7.); – Evolving galaxies in evolving environments, (Bologna, 15.9. - 19.9.)
- V. Prat: Contributed talk (IAU Symposium 307, Geneva, 23.6.)
- C. Spiniello: Unveiling the Formation of Massive Galaxies (Aspen 3.2. - 7.2.); – NAM2014, The Initial Mass Function of Galaxies: Myth & Facts (Porthsmouth, 23.6. - 26.6.); – IAU Symposium 311 (Oxford, 21.7. - 25.7.); – The universe of digital sky surveys (Naples, 24.11. - 28.11.)
- H. Spruit: Gamma-ray burst, Supernova & magnetar thinkshop (Bormio, IT, 20.–24.1.)
- R. Sunyaev: The 10th Sino-German Workshop on Galaxy Formation and Cosmology, ‘From Dark Matter to Galaxies’, (Xi’an, China 18.5.-23.5.); – The 2014 Shanghai Particle Physics and Cosmology Symposium (SPCS2014), (Jiao Tong University, China 28.5.-31.5.); – conference “Zeldovich-100”, Moscow, 16.6.-20.6.); – IAU Symposium 308: The Zeldovich Universe: Genesis and Growth of the Cosmic Web, (Tallinn, 23.6.-28.6.) ; – IKI Moscow, High Energy Astrophysics today and tomorrow, (Moscow, IKI, 23.12.-25.12.); – Colloquium of A.F. Ioffe Physical-Technical Institute, (St-Petersburg, 7.9.-9.9.); – Annual conference of Spanish Astronomers, (Teruel, Spain 11.9.-13.9.); – Conference: PLANCK 2014 - The microwave sky in temperature and polarization, (Ferrara, Italy, 1.12.-5.12.)
- S. White: Unveiling the Formation of Massive Galaxies (Aspen, 2.-7.2.) ; – The Formation and Growth of Galaxies in the Young Universe - (Ogergurgl, Austria, 26.4.-30.4.) ; – Ringberg Workshop “Gas in and around galaxies” (Tegernsee, Germany, 12.-16.5.); – Amsterdam Meeting (Amsterdam, 22.6.-25.6.); – IAU Symposium 311 (Oxford, 20.7. - 25.7.); – Potsdam Conference (Potsdam, 25.8.-29.8.); – Solvay Conference (Brussels, 8.10.-11.10.);
- T. E. Woods: Quenching and Quiescence (Heidelberg, Germany, 14.7.-18.7.)
- A. Weiss: Symposium “SYSE”, during DPG annual meeting, (Berlin, 18.-19.3); – Workshop “GaiaCal2014”, (Ringberg Castle, 9.7.)
- Kolloquiumsvorträge*
- B. Ciardi: Invited Colloquium (Osservatorio Astrofisico di Firenze, Florence; 27.2); – Invited Colloquium (Ossevatorio Astronomico di Roma, Monte Porzio; 18.2)
- T.A. Enßlin: Invited Colloquium (Universe Cluster LMU; 17.2.); – Invited Colloquium (University Hamburg; 11.12); – Invited Colloquium (Karlsruhe Institute for Technology; 18.12)
- M. Gaspari: Invited Colloquium (LMU, Munich - 14.04.14).
- M. Gilfanov: Invited Colloquium (Technion, Haifa - 27.10.)
- J. Guilet: Invited seminar (IPAG Grenoble; 16.10.); – Invited seminar (SAP CEA-Saclay, 16.12.)
- W. Hillebrandt: University of Basel (8.5.)
- H.-Th. Janka: Invited Colloquium (Astronomy Inst./GRAPPA Amsterdam; 2.7.); – “PRISMA and GK” Seminar (JG Univ. Mainz, 5.11.); – Invited Colloquium (AEI Potsdam/Berlin, 15.10.); – “Astro-/Kernphysikalische Kolloquium” (FIAS Frankfurt, 30.1.); – Joint Astronomy Colloquium (ESO Garching, 9.10.);
- G. Kauffmann: Invited Colloquium (Princeton University; 1.5.); – Invited Colloquium

(Rutgers University; 2.5.); – Invited Colloquium (Garching; 3.7.)

E. Komatsu: Invited Colloquium (Univ. of Heidelberg; 14.1.); – (AIP; 14.3.); – (Univ. of Kyoto; 26.3.); – (MPI für Physik; 1.4.); – (ICTP; 22.10.)

J. M. D. Kruijssen: Invited Colloquium (ARI Heidelberg; 23.10.)

S. Mineo: Invited Seminar (INAF/Bologna University; 11.12.)

M. Selig: Excellence CLuster Workshop (Garching; 17.2.)

C. Spiniello: Invited colloquium (Copenhagen, 26.2.) – Invited colloquium (Oxford, 13.5.)

H. Spruit: Invited Colloquium (Pontificia Universidad Catolica de Chile, Santiago, 26.5.); – Invited Colloquium (ESO Vitacura, Santiago, 11.6.)

R. Sunyaev: Physics Colloquium (TU Berlin, 17.1.)

A. Weiss: Invited Colloquium (Observatoire Midi-Pyrénées Toulouse; 3.4.)

T. E. Woods: Invited Colloquium HEAD Lunch Talk (Harvard-Smithsonian CFA) 24.9.
Invited Colloquium Astro Seminar (University of Alberta) 11.9.

Öffentliche Vorträge

G. Börner: Universität Regensburg (30.9.)

T.A. Enßlin: Kolpingfamilie Gersthofen, Augsburg (14.6.); – Lehrerfortbildung “Das frühe Universum”, Bad Honnef (21.7.); – Summerschool on “Aspects of String- and Fieldtheories”, LMU München (19.8.); – Astronomische Gesellschaft Buchloe e.V. (19.9); – “Wissenschaft für jedermann” im Deutschen Museum (19.11.)

M. Gilfanov: Kazan Federal University (20.9.)

J. Guilet: Palais de la découverte, Paris (2.2.)

W. Hillebrandt: Förderkreis Planetarium Göttingen 4.11.)

H.-Th. Janka: Universität Frankfurt (30.1.)

E. Komatsu: Yamanashi Prefectural Science Center, Yamanashi, Japan (8.11.); – Chienkan High School, Saga, Japan (14.11.); – Roppongi Art College, Tokyo, Japan (2.12.)

H. Spruit: Volkssternwarte Laupheim (14.3.)

A. Weiss: Gymnasium Weilheim (6.5.)

6.4 Kooperationen

Benedetta Ciardi: Dark Ages VIRTUAL Department (DAVID). collaboration network for the study of Cosmology and the high redshift Universe:
<http://wiki.arcetri.astro.it/bin/view/DAVID/WebHome>

Benedetta Ciardi: LOFAR Epoch of Reionization Key Science Project. LOW Frequency ARray radio telescope, is designed, among other things, to measure the neutral hydrogen fraction in the Universe as a function of redshift, through the hydrogen hyperfine 21cm line. <http://www.astro.rug.nl/eor/>

HETDEX (Cosmology group) The Hobby-Eberly Telescope Dark Energy Experiment (HETDEX) is the first blind spectroscopic survey of millions of emission-line galaxies in the universe. <http://hetdex.org/>

PFS (Cosmology group) The Prime Focus Spectrograph (PFS) is a massively multiplexed fiber-fed spectrograph with 2400 moving optical fibers. <http://pfs.ipmu.jp/>

Torsten Enßlin: DFG Research Unit 1254 Magnetisation of Interstellar and Intergalactic Media The Prospects of Low-Frequency Radio Observations <https://astro.uni-bonn.de/cosmag/>

Guinevere Kauffmann: MPA/JHU collaboration on galaxy spectrum measurements in the.

Sloan Digital Sky survey <http://www.mpa-garching.mpg.de/SDSS/DR7/>
<http://home.strw.leidenuniv.nl/~jarle/SDSS/>

6.5 Sonstige Reisen

G. Börner: Shanghai Astronomical Observatory (4.11.–30.11.)

A. Gatto: Institute of Physics, Cologne University, Cologne (23.2.–27.3.).

A. Gatto: American Museum of Natural History, Department of Astrophysics, New York City (15.9.–15.12.).

E. Komatsu: Kavli Institute for Physics and Mathematics of the Universe (IPMU), University of Tokyo, Tokyo, Japan (24.10.–26.12.)

S. Mineo: INAF/Bologna University (11.12–12.12)

H. Spruit: Pontificia Universidad Católica, Santiago (23.5.–13.6.)

H. Spruit: Monash University, Melbourne (22.9.–31.10.)

7 Veröffentlichungen

7.1 In Zeitschriften und Büchern

Ahn, C. P., R. Alexandroff, et al. (incl. S. White): The tenth data release of the Sloan Digital Sky Survey: first spectroscopic data from the SDSS–III Apache Point Observatory Galactic Evolution Experiment. *Astrophys. J. Suppl.* **211**, 17 (2014).

Alatalo, K., K. Nyland et al. (incl. Th. Naab): NGC 1266 as a local candidate for rapid cessation of star formation. *Astrophys. J.*, **780**, 186 (2014).

Algorry, D.; J. Navarro et al. (incl. L. Sales): Counterrotating stars in simulated galaxy discs. *Mon. Not. R. Astron. Soc.*, **437**, 3596–3602 (2014).

Anderson, M. E., and J.N. Bregman: Modeling X–ray emission around galaxies. *Astrophys. J.* **785** 67 (2014).

Ando, S., A. Benoit–Levy, and E. Komatsu: Mapping dark matter in the gamma–ray sky with galaxy catalogs. *Phys. Rev. D*, **90** 023514 (2014).

Angulo, R., S. White, V. Springel and B. Henriques: Galaxy formation on the largest scales: the impact of astrophysics on the baryonic acoustic oscillation peak. *Mon. Not. R. Astron. Soc.* **442**, 2131–2144 (2014).

Arcavi, I., A. Gal–Yam, et al. (incl. A. Sternberg): A continuum of H– to He–rich tidal disruption candidates with a preference for E+A galaxies. *Astrophys. J.* **793**, 38 (2014).

Arnett, W. D., C. Meakin and M. Viallet: Chaos and turbulent nucleosynthesis prior to a supernova explosion. *AIP Advances*, **4**, 041010 (2014).

Ashall, C., P. Mazzali, D. Bersier et al.: Photometric and spectroscopic observations, and abundance tomography modelling of the type Ia supernova SN 2014J located in M82. *Mon. Not. R. Astron. Soc.* **445**, 4427–4437 (2014).

Augustovičová, L., P. Soldán, W.P. Kraemer and V. Špirko: Potential microwave probes of the proton-to-electron mass ratio at very high redshifts. *Mon. Not. R. Astron. Soc.* **439**, 1136–1139 (2014).

Augustovicova, L., W. Kraemer, and P. Soldan: Depopulation of metastable helium by radiative association with hydrogen and lithium ions. *Astrophys. J.* **782**, 46 (2014).

Augustovicova, L., W. Kraemer, and P. Soldan: Depopulation of metastable helium He(2(1)S) by radiative association with hydrogen and lithium cations. *Journal of Quant. Spectroscopy* **148**, 27–37 (2014).

- Aumer, M., S. White and Th. Naab: The diverse formation histories of simulated disc galaxies. *Mon. Not. R. Astron. Soc.* **441**, 3679–3695 (2014).
- Bally, J., M. Rathborne et al. (incl. D. Kruijssen): Absorption filaments toward the massive clump G0.253+0.016. *Astrophys. J.* **795**, 28 (2014).
- Barai, P., Viel, et al. (incl. M. Gaspari): Kinetic or thermal AGN feedback in simulations of isolated and merging disc galaxies calibrated by the $M-\omega$ relation. *Mon. Not. R. Astron. Soc.* **437**, 1456–1475 (2014).
- Bauswein, A., R. Ardevol, H.–T. Janka and S. Goriely: Nucleosynthesis constraints on the neutron star–black hole merger rate. *Astrophys. J. Lett.* **795**, L9 (2014).
- Bauswein, A., N. Stergioulas and H.–T. Janka: Revealing the high–density equation of state through binary neutron star mergers. *Phys. Rev. D*, **90** 023002 (2014).
- Behrens, C., M. Dijkstra and J. Niemeyer: Beamed Ly α emission through outflow–driven cavities. *Astron. Astrophys.* **563** A77 (2014).
- Beifiori, A., D. Thomas, et al. (incl. J. Johansson): Redshift evolution of the dynamical properties of massive galaxies from SDSS–III/BOSS. *Astrophys. J.*, **789**, 92 (2014).
- Belyaev, A.K., L. Augustovičová, P. Soldán and W.P. Kraemer: Non-radiative inelastic processes in lithium–helium ion–atom collisions. *Astron. Astrophys.* **565**, A106 (2014).
- Ben–Ami, S., Gal–Yam, A., Mazzali: SN 2010mb: direct evidence for a supernova interacting with a large amount of hydrogen–free circumstellar material. *Astrophys. J.*, **785**, 37 (2014).
- Benetti, S., M. Nicholl, et al. (incl. S. Taubenberger): The supernova CSS121015:004244 +132827: a clue for understanding superluminous supernovae. *Mon. Not. R. Astron. Soc.* **441**, 289–303 (2014).
- Beutler, F., S. Saito, et al. (incl. C. Wagner): The clustering of galaxies in the SDSS–III Baryon Oscillation Spectroscopic Survey: signs of neutrino mass in current cosmological data sets. *Mon. Not. R. Astron. Soc.* **444**, 3501–3516 (2014).
- Bizzocchi, L., M. Filho et al. (incl. B. Henriques): Bulgeless galaxies at intermediate redshift: sample selection, color properties, and the existence of powerful active galactic nuclei. *Astrophys. J.*, **782**, 22 (2014).
- Bogdan, A., R. J. van Weeren et al. (incl. E. Churazov): Young AGN outburst running over older X–ray cavities. *Astrophys. J. Lett.* **782**, L19 (2014).
- Boselli, A., L. Cortese, et al. (incl. B. Catinella): Cold gas properties of the Herschel Reference Survey – II. Molecular and total gas scaling relations. *Astron. Astrophys.* **564** A66(2014).
- Boselli, A., L. Cortese, et al. (incl. B. Catinella): Cold gas properties of the Herschel Reference Survey – III. Molecular gas stripping in cluster galaxies. *Astron. Astrophys.* **564** A67 (2014).
- Bufano, F., G. Pignata, et al. (incl. P. Mazzali): SN 2011hs: a fast and faint type IIb supernova from a supergiant progenitor. *Mon. Not. R. Astron. Soc.* **439**, 1807–1828 (2014).
- Chen, H.–L., T. Woods, et al. (incl. M. Gilfanov): Next generation population synthesis of accreting white dwarfs – I. Hybrid calculations using bse + mesa. *Mon. Not. R. Astron. Soc.* **445**, 1912–1923. (2014).
- Chiavassa, A., R. Ligi, Z. Magic et al.: Planet transit and stellar granulation detection with interferometry – Using the three–dimensional stellar atmosphere Stagger–grid simulations. *Astron. Astrophys.* **567** A115 (2014).
- Choi, E., Th. Naab, et al. (incl. B. Moster): Consequences of mechanical and radiative feedback from black holes in disc galaxy mergers. *Mon. Not. R. Astron. Soc.* **442**,

- 440–453 (2014).
- Churazov, E., R. Sunyaev, J. Isern et al.: Cobalt–56 Γ -ray emission lines from the type Ia supernova 2014J. *Nature*, **512** 406–408 (2014).
- Coenen, T., J. van Leeuwen et al. (incl. B. Ciardi): The LOFAR pilot surveys for pulsars and fast radio transients. *Astron. Astrophys.* **570** A60 (2014).
- Corsi, A., Ofek, et al. (incl. A. Sternberg): A multi-wavelength investigation of the radio-loud supernova PTF11qcj and its circumstellar environment. *Astrophys. J.*, **782**, 42 (2014).
- D’Souza, R., G. Kauffmann, J. Wang and S. Vegetti: Parametrizing the stellar haloes of galaxies. *Mon. Not. R. Astron. Soc.* **443**, 1433–1450 (2014).
- Dall’Ora, M., et al. (incl. S. Taubenberger and S. Benitez): The type IIP supernova 2012aw in M95: hydrodynamical modeling of the photospheric phase from accurate spectrophotometric monitoring. *Astrophys. J.*, **787**, 139 (2014).
- Davis, J. H., T. Enßlin, and C. Böhm: New method for analyzing dark matter direct detection data. *Physical Review D*, **89**, 043505 (2014).
- Davis, T. A., L.M. Young et al. (incl. Th. Naab): The ATLAS3D Project – XXVIII. Dynamically driven star formation suppression in early-type galaxies. *Mon. Not. R. Astron. Soc.* **444**, 3427–3445 (2014).
- De Lucia, G., L. Tornatore et al. (incl. S. White): Elemental abundances in Milky Way-like galaxies from a hierarchical galaxy formation model. *Mon. Not. R. Astron. Soc.* **445**, 970–987 (2014).
- de Souza, R. S., E. Ishida, D. Whalen et al.: Probing the stellar initial mass function with high- z supernovae. *Mon. Not. R. Astron. Soc.* **442**, 1640–1655 (2014).
- de Souza, R. S., U. Maio, V. Biffi and B. Ciardi: Robust PCA and MIC statistics of baryons in early minihaloes. *Mon. Not. R. Astron. Soc.* **440**, 240–248 (2014).
- Deheuvels, S. et al. (incl. L. Casagrande and X.H. Yang): Seismic constraints on the radial dependence of the internal rotation profiles of six Kepler subgiants and young red giants. *Astron. Astrophys.* **564** A27 (2014).
- Dennison, K. A., T. Baumgarte and P. Montero: Trumpet slices in Kerr spacetimes. *Phys. Rev. Lett.* **113**, 261101 (2014).
- Dijkstra, M.: Ly α emitting galaxies as a probe of reionisation. *Publ. of the Astron. of Australia*, **31**, 040 (2014).
- Dijkstra, M., S. Wyithe, Z. Haiman et al.: Evolution in the escape fraction of ionizing photons and the decline in strong Ly α emission from $z > 6$ galaxies. *Mon. Not. R. Astron. Soc.* **440**, 3309–3316 (2014).
- Dijkstra, M., A. Ferrara, and A. Mesinger: Feedback-regulated supermassive black hole seed formation. *Mon. Not. R. Astron. Soc.* **442**, 2036–2047 (2014).
- Dorn, S., E. Ramirez, et al. (incl. T. Enßlin): Generic inference of inflation models by non-Gaussianity and primordial power spectrum reconstruction. *J. of Cosmology and Astropart. Phys.* **6**, 1475–7516 (2014).
- Dunkel, J., and S. Hilbert: Consistent thermostatics forbids negative absolute temperatures. *Nature Phys.* **10**, 67–72 (2014).
- Eckert, D., Molendi et al. (incl. M. Gaspari): The stripping of a galaxy group diving into the massive cluster A2142. *Astron. Astrophys.* **570**, A119 (2014).
- Enßlin, T. A., H. Junklewitz, L. Winderling et al: Improving self-calibration. *Phys. Rev. E*, **90** 043301 (2014).
- Ergon, M., Sollerman, J., et al. (incl. S. Taubenberger): Optical and near-infrared obser-

- vations of SN 2011dh – the first 100 days. *Astron. Astrophys.* **562**, A17 (2014).
- Fernandez, R., B. Müller, T. Foglizzo and H.-T. Janka: Characterizing SASI – and convection-dominated core-collapse supernova explosions in two dimensions. *Mon. Not. R. Astron. Soc.* **440**, 2763–2780 (2014).
- Filho, M. E., P. Brochado et al. (incl. B. Henriques): A multiple dry merger at $z = 0.18$: witnessing the assembly of a massive elliptical galaxy. *Mon. Not. R. Astron. Soc.* **443**, 288–298 (2014).
- Fink, M., M. Kromer, I. Seitenzahl et al.: Three-dimensional pure deflagration models with nucleosynthesis and synthetic observables for type Ia supernovae. *Mon. Not. R. Astron. Soc.* **438**, 1762–1783 (2014).
- Foley, R. J., Fox, et al. (incl. W. Hillebrandt): Extensive HST ultraviolet spectra and multiwavelength observations of SN 2014J in M82 indicate reddening and circumstellar scattering by typical dust. *Mon. Not. R. Astron. Soc.* **443** 2887–2906 (2014).
- Forero-Romero, J. E., S. Contreras, and N. Padilla: Cosmic web alignments with the shape, angular momentum and peculiar velocities of dark matter haloes. *Mon. Not. R. Astron. Soc.* **443**, 1090–1102 (2014).
- Förster Schreiber, N. M., R. Genzel et al. (incl. Th. Naab): The Sins/zC-Sinf survey of $z \sim 2$ galaxy kinematics: evidence for powerful active galactic nucleus-driven nuclear outflows in massive star-forming galaxies. *Astrophys. J.* **787** 38 (2014).
- Gabler, M., P. Cerda-Duran et al. (incl. E. Müller): Modulating magnetar emission by magneto-elastic oscillations *Astronomische Nachrichten*, **335**, 240–245 (2014).
- Gabler, M., P. Cerda-Duran et al. (incl. E. Müller): Modulating the magnetosphere of magnetars by internal magneto-elastic oscillations. *Mon. Not. R. Astron. Soc.* **443**, 1416–1424 (2014).
- García-Berro, E., S. Torres et al. (incl. M. Biller-Bertolami): The white dwarf cooling sequence of 47 Tucanae. *Astron. Astrophys.* **571**, A56 (2014).
- Gaspari, M., E. Churazov, D. Nagai et al.: The relation between gas density and velocity power spectra in galaxy clusters: high-resolution hydrodynamic simulations and the role of conduction. *Astron. Astrophys.* **569**, A67 (2014).
- Gaspari, M., F. Brighenti, P. Temi and S. Ettori: Can AGN feedback break the self-similarity of galaxies, groups, and clusters? *Astrophys. J. Lett.* **783**, L10 (2014).
- Genovali, K. et al. (incl. M. Bergemann and R.-P. Kudritzki): On the fine structure of the Cepheid metallicity gradient in the galactic thin disk. *Astron. Astrophys.* **566**, A37 (2014).
- Genzel, R., N. Förster Schreiber, et al. (incl. Th. Naab): Evidence for wide-spread active galactic nucleus-driven outflows in the most massive $z \sim 1-2$ star-forming galaxies. *Astrophys. J.* **796**, 7 (2014).
- Genzel, R., N. Förster Schreiber, et al. (incl. Th. Naab): The SINS/zC-SINF survey of $z \sim 2$ galaxy kinematics: evidence for gravitational quenching. *Astrophys. J.* **785**, 75 (2014).
- Gil-Marín, H., C. Wagner, J. Noreña et al: Dark matter and halo bispectrum in redshift space: theory and applications. *J. Cosmology and Astr. Phys.* **12** 029 (2014).
- Gilfanov, M. R., and R. A. Sunyaev: Radiation-dominated boundary layer between an accretion disc and the surface of a neutron star: theory and observations. *Physics Uspekhi*, **57**, 377–388 (2014).
- Gilfanov, M., and A. Merloni: Observational appearance of black holes in X-ray binaries and AGN. *Space Science Reviews*, **183**, 121–148 (2014).
- Girichidis, P., L. Konstantin, A. Whitworth and R. Klessen: On the evolution of the density

- probability density function in strongly self-gravitating systems. *The Astrophys. J.* **781**, 91 (2014).
- Gómez-Vargas, G., A. Cuoco, et al. (incl. E. Komatsu) Dark matter implications of Fermi-LAT measurement of anisotropies in the diffuse gamma-ray background. *NIMA* **742**, 149–153 (2014).
- Goudfrooij, P., and D. Kruijssen: Color-magnitude relations within globular cluster systems of giant elliptical galaxies: the effects of globular cluster mass loss and the stellar initial mass function. *Astrophys. J.*, **780**, 43 (2014).
- Grimm-Strele, H., F. Kupka, and H. Muthsam: Curvilinear grids for WENO methods in astrophysical simulations. *Comp. Physics Comm.* **185**, 764–776 (2014).
- Guilet, J., and G. Ogilvie: Global evolution of the magnetic field in a thin disc and its consequences for protoplanetary systems. *Mon. Not. R. Astron. Soc.* **441**, 852–868 (2014).
- Guilet, J. and R. Fernandez: Angular momentum redistribution by SASI spiral modes and consequences for neutron star spins. *Mon. Not. R. Astron. Soc.* **441**, 2782 (2014).
- Guo, H., C. Li, Y.P. Jing and G. Börner: Stellar mass and color dependence of the three-point correlation function of galaxies in the local universe. *Astrophys. J.* **780**, 139 (2014).
- Guo, Q., and S. White: Numerical resolution limits on subhalo abundance matching. *Mon. Not. R. Astron. Soc.* **437**, 3228–3235 (2014).
- Haas, M., C. Leipski et al. (S. Vegetti): 3C 220.3: a radio galaxy lensing a submillimeter galaxy *Astrophys. J.* **790**, 46 (2014).
- Heinzel, P., J.C Vial, and U. Anzer: On the formation of MgII h and k lines in solar prominences. *Astron. Astrophys.* **564**, A132 (2014).
- Hernandez-Monteagudo, C., A. Ross, A. Cuesta, et al.: The SDSS-III Baryonic Oscillation Spectroscopic Survey: constraints on the integrated Sachs-Wolfe effect. *Mon. Not. R. Astron. Soc.* **438**, 1724–1740 (2014).
- Hirschmann, M., K. Dolag, A. Saro et al.: Cosmological simulations of black hole growth: AGN luminosities and downsizing. *Mon. Not. R. Astron. Soc.* **442**, 2304–2324 (2014).
- Hoffmann, K., S. Planelles et al. (incl. M. Maciejewski): Subhaloes gone Notts: subhaloes as tracers of the dark matter halo shape. *Mon. Not. R. Astron. Soc.* **442**, 1197–1210 (2014).
- Hu, C.-Y., T. Naab, S. Walch, et al.: SPHGal: smoothed particle hydrodynamics with improved accuracy for galaxy simulations. *Mon. Not. R. Astron. Soc.* **443**, 1173–1191 (2014).
- Huang, M.-L., and G. Kauffmann: The variation in molecular gas depletion time among nearby galaxies: what are the main parameter dependences? *Mon. Not. R. Astron. Soc.* **443**, 1329–1338 (2014).
- Hütsi, G., M. Gilfanov, A. Kolodzig and R. Sunyaev: Probing large-scale structure with large samples of X-ray selected AGN I. Baryonic acoustic oscillations. *Astron. Astrophys.* **572**, A28 (2014).
- Hütsi, G., M. Gilfanov and R. Sunyaev: Linking X-ray AGN with dark matter halos: a model compatible with AGN luminosity function and large-scale clustering properties. *Astron. Astrophys.* **561**, A58 (2014).
- Jeesson-Daniel, A., B. Ciardi and L. Graziani: Clumping factors of H II, He II and He III. *Mon. Not. R. Astron. Soc.* **443**, 2722–2732 (2014).
- Jelic, V., A.G. de Bruyn et al. (incl. B. Ciardi): Initial LOFAR observations of epoch of reionization windows – II. Diffuse polarized emission in the ELAIS-N1 field. *Astron.*

- Astrophys. **568**, A101 (2014).
- Jeon, M., A. Pawlik, V. Bromm, and M. Milosavljevic: Radiative feedback from high-mass X-ray binaries on the formation of the first galaxies and early reionization. *Mon. Not. R. Astron. Soc.* **440**, 3778–3796 (2014).
- Jofre, P., U. Heiter et al. (incl. M. Bergemann): Gaia FGK benchmark stars: metallicity. *Astron. Astrophys.* **564**, A133 (2014).
- Johansson, J., T. Woods, M. Gilfanov et al.: Diffuse gas in galaxies sheds new light on the origin of type Ia supernovae. *Mon. Not. R. Astron. Soc.* **442**, 1079–1089 (2014).
- Joseph, R., F. Courbin et al. (incl. M. Petkova): A PCA-based automated finder for galaxy-scale strong lenses. *Astron. Astrophys.* **566**, A63(2014).
- Kauffmann, G.: Quantitative constraints on starburst cycles in galaxies with stellar masses in the range 10(8)–10(10). *Mon. Not. R. Astron. Soc.* **441**, 2717–2724 (2014).
- Keller, S., M. Bessell et al. (incl. Z. Magic): A single low-energy, iron-poor supernova as the source of metals in the star SMSS J031300.36–670839.3. *Nature*, **506**, 463–466 (2014).
- Kerzendorf, W., S. Taubenberger, I. Seitenzahl and A. Ruiter: Very late photometry of SN 2011fe. *Astrophys. J. Lett.* **796** L26 (2014).
- Khabibullin, I., and S. Sazonov: Stellar tidal disruption candidates found by cross-correlating the ROSAT Bright Source Catalogue and XMM-Newton observations. *Mon. Not. R. Astron. Soc.* **444**, 1041–1053 (2014).
- Khabibullin, I., S. Sazonov and R. Sunyaev: SRG/eROSITA prospects for the detection of stellar tidal disruption flares. *Mon. Not. R. Astron. Soc.* **437**, 327–337(2014).
- Khedekar, S., E. Churazov, S. Sazonov, et al.: Scattering of emission lines in galaxy cluster cores: measuring electron temperature. *Mon. Not. R. Astron. Soc.* **441**, 1537–1544 (2014).
- Kim, J.-H., T. Abel et al. (incl. F. Iannuzzi): The AGORA high-resolution galaxy simulations comparison project *Astrophys. J. Suppl.* **210** 14 (2014).
- Krone-Martins, A., E. Ishida and R. de Souza: The first analytical expression to estimate photometric redshifts suggested by a machine, *Mon. Not. R. Astron. Soc. Lett.* **443**, L34–L38 (2014).
- Koliopanos, F., M. Gilfanov, L. Bildsten and M.D. Trigo: X-ray diagnostics of chemical composition of the accretion disc and donor star in UCXBs – II. XMM-Newton observations. *Mon. Not. R. Astron. Soc.* **442**, 2817–2825 (2014).
- Komarov, S. V., E. Churazov, A. Schekochihin and J. ZuHone: Suppression of local heat flux in a turbulent magnetized intracluster medium. *Mon. Not. R. Astron. Soc.* **440**, 1153–1164 (2014).
- Komatsu, E., C. Bennett, (on behalf of the WMAP science team): Results from the Wilkinson Microwave Anisotropy Probe. *Progress of Theor. and Exp. Phys.*, **06B102** 1–24 (2014).
- Kruijssen, J. M. D.: Globular cluster formation in the context of galaxy formation and evolution. *Classical and Quantum Gravity*, **31**, 24 (2014).
- Kruijssen, J. M. D., S.N. Longmore, B.G. Elmegreen et al.: What controls star formation in the central 500 pc of the galaxy? *Mon. Not. R. Astron. Soc.* **440**, 3370–3391 (2014).
- Kruijssen, J. M. D. and S.N. Longmore: n uncertainty principle for star formation – I. Why galactic star formation relations break down below a certain spatial scale lar mass and star formation rate. *Mon. Not. R. Astron. Soc.* **439**, 3239–3252 (2014).
- Kunze, K., and E. Komatsu: Constraining primordial magnetic fields with distortions of the black-body spectrum of the cosmic microwave background: pre- and post-decoupling

- contributions. *J. of Cosmology and Astrop. Phys.* **009**, 1–25 (2014).
- Li, M., R. Angulo, S. White, and J. Jasche: Matched filter optimization of kSZ measurements with a reconstructed cosmological flow field. *Mon. Not. R. Astron. Soc.* **443**, 2311–2326 (2014).
- Lomax, O., A. Whitworth et al. (incl. S. Walch): Simulating star formation in Ophiuchus. *Mon. Not. R. Astron. Soc.* **439**, 3039–3050 (2014).
- Ludlow, A. D., J. Navarro et al. (incl. S. White): The mass–concentration–redshift relation of cold dark matter haloes. *Mon. Not. R. Astron. Soc.* **441**, 378–388 (2014).
- Lyskova, N., E. Churazov, A. Moiseev et al.: Stellar kinematics of X–ray bright massive elliptical galaxies. *Mon. Not. R. Astron. Soc.* **441**, 2013–2033 (2014).
- Maguire, K., M. Sullivan, Y.–C. Pan et al.: Exploring the spectral diversity of low–redshift type Ia supernovae using the Palomar Transient Factory. *Mon. Not. R. Astron. Soc.* **444**, 3258–3274 (2014).
- Marino, A. F., A. Milone, et al. (incl. M. Bergemann): Helium enhanced stars and multiple populations along the horizontal branch of NGC 2808: direct spectroscopic measurements. *Mon. Not. R. Astron. Soc.* **437**, 1609–1627 (2014).
- Mazumdar, A., M.J. Monteiro, et al. (incl. V. Silva): Measurement of acoustic glitches in solar-type stars from oscillation frequencies observed by Kepler. *Astrophys. J.* **782** 18, (2014).
- Mazzali, P. A., A. McFadyen, S. Woosley et al.: An upper limit to the energy of gamma-ray bursts indicates that GRBs/SNe are powered by magnetars. *Mon. Not. R. Astron. Soc.* **443**, 67–71 (2014).
- Mazzali, P. A., M. Sullivan, S. Hachinger et al.: Hubble Space Telescope spectra of the type Ia supernova SN 2011fe: a tail of low-density, high-velocity material with $Z < Z_{\odot}$. *Mon. Not. R. Astron. Soc.* **439**, 1959–1979 (2014).
- McDermid, R. M., M. Cappellari et al. (incl. Th. Naab): Connection between dynamically derived initial mass function normalization and stellar population parameters. *Astrophys. J. Lett.* **792**, L37 (2014).
- McQuinn, K. B. W.; M. J. Cannon, et al. (incl. A. Saintonge): Distance determinations to SHIELD galaxies from Hubble Space Telescope imaging. *Astrophys. J.* **785**, 3 (2014).
- Medvedev, P., M. Gilfanov, S. Sazonov and P. Shtykovskiy: Impact of thermal diffusion and other abundance anomalies on cosmological uses of galaxy clusters. *Mon. Not. R. Astron. Soc.* **440**, 2464–2473 (2014).
- Melandri, A., E. Pian et al (incl. P. Mazzali): Diversity of gamma–ray burst energetics vs. supernova homogeneity: SN 2013cq associated with GRB 130427A. *Astron. Astrophys.* **567**, A29 (2014).
- Meyer–Hofmeister, E., and F. Meyer: The relation between radio and X-ray luminosity of black hole binaries: affected by inner cool disks? *Astron. Astrophys.* **562**, A142 (2014).
- Milisavljevic, D., R. Margutti, et al (incl. P. Mazzali): Interaction between the broad-lined type Ic supernova 2012ap and carriers of diffuse interstellar bands. *Astrophys. J. Lett.* **782**, L5 (2014).
- Miller Bertolami, M., B. Melendez, L. Althaus and J. Isern: Revisiting the axion bounds from the Galactic white dwarf luminosity function. *J. of Cosmology and Astrop. Phys.* **10**, 069 (2014).
- Miller Bertolami, M. M.: Limits on the neutrino magnetic dipole moment from the luminosity function of hot white dwarfs. *Astron. Astrophys.* **562**, A123 (2014).
- Mineo, S., S. Rappaport, A. Levine et al.: A comprehensive X-ray and multiwavelength study of the colliding galaxy pair NGC 2207/IC 2163. *Astrophys. J. Lett.* **797**, 91

- (2014).
- Mineo, S., M. Gilfanov, B. Lehmer et al.: X-ray emission from star-forming galaxies – III. Calibration of the LX-SFR relation up to redshift $z \approx 1.3$ non-degenerate set of optical line indices. *Mon. Not. R. Astron. Soc.* **437**, 1698-1707 (2014).
- Molaro, M., R. Khatri, and R. Sunyaev: A thin diffuse component of the galactic ridge X-ray emission and heating of the interstellar medium contributed by the radiation of galactic X-ray binaries. *Astron. Astrophys.* **564**, A107 (2014).
- Molenda-Zakowicz, J., K. Brogaard et al. (incl. M. Bergemann): Spectroscopic study of the open cluster NGC 6811. *Mon. Not. R. Astron. Soc.* **445**, 2446-2461 (2014).
- Moll, R., C. Raskin, D. Kasen, and S. Woosley: Type Ia supernovae from merging white dwarfs. I. Prompt detonations. *Astrophys. J.* **785**, 105 (2014).
- Montero, P. J., T. Baumgarte and E. Müller: General relativistic hydrodynamics in curvilinear coordinates. *Phys. Review D*, **89** 084043 (2014).
- Morales-Garoffolo, A. et al. (incl. S. Taubenberger and M. Klauer): SN 2013df, a double-peaked IIb supernova from a compact progenitor and an extended H envelope. *Mon. Not. R. Astron. Soc.* **445**, 1647-1662 (2014).
- Morel, T., N. Castro, et al. (incl. H. Spruit): The B fields in OB stars (BOB) survey. *The ESO Messenger*, **157**, 27-31 (2014).
- Morokuma, T., N. Tominaga, et al. (incl. P. Mazzali): Kiso supernova survey (KISS): survey strategy. *Publ. of the Astron. Soc. of Japan*, **66** 114 (2014).
- Morosan, D. E., P.T. Gallagher et al. (incl. B. Ciardi): LOFAR tied-array imaging of type III solar radio bursts. *Astron. Astrophys.* **568**, A67 (2014).
- Moster, B. P., A.V. Maccio and R.S. Somerville: Numerical hydrodynamic simulations based on semi-analytic galaxy merger trees: method and Milky Way-like galaxies. *Mon. Not. R. Astron. Soc.* **437**, 1027-1044 (2014).
- Mulcahy, D. D., A. Horneffer et al. (incl. T. Enßlin): The nature of the low-frequency emission of M 51 – First observations of a nearby galaxy with LOFAR. *Astron. Astrophys.* **568**, A74 (2014).
- Naab, T., L. Oser, E. Emsellem et al.: The ATLAS3D project – XXV. Two-dimensional kinematic analysis of simulated galaxies and the cosmological origin of fast and slow rotators. *Mon. Not. R. Astron. Soc.* **444**, 3357-3387 (2014).
- Nakamura, T., Kashiyama, et al. (incl. Y. Suwa): Soft X-ray Extended Emissions of Short Gamma-Ray Bursts as Electromagnetic Counterparts of Compact Binary Mergers; Possible Origin and Detectability. *Astrophys. J.*, **796**, 13 (2014)
- Newman, S. F., Buschkamp, P. et al. (incl. Th. Naab): Nebular excitation in $z \sim 2$ star-forming galaxies from the SINS and LUCI surveys: the influence of shocks and active galactic nuclei. *Astrophys. J.* **781**, 21 (2014).
- Nielsen, M. T. B., M. Gilfanov et al. (incl. T. Woods): Upper limits on the luminosity of the progenitor of type Ia supernova SN 2014J. *Mon. Not. R. Astron. Soc.* **442**, 3400-3406 (2014).
- Nielsen, M. T. B., G. Nelemans, R. Voss, and S. Toonen: On double-degenerate type Ia supernova progenitors as supersoft X-ray sources – a population synthesis analysis using SeBa. *Astron. Astrophys.* **563**, A16 (2014).
- Obergaulinger, M., H.-T. Janka, and M. A. Aloy: Magnetic field amplification and magnetically supported explosions of collapsing, non-rotating stellar cores. *Mon. Not. R. Astron. Soc.* **445**, 3169-3199 (2014).
- Ohlmann, S. T., M. Kromer, et al. (incl. I. Seitenzahl): The white dwarf's carbon fraction as a secondary parameter of type Ia supernovae. *Astron. Astrophys.* **572**, A57 (2014).

- Oonk, J. B. R., R. van Weeren et al. (incl. B. Ciardi): Discovery of carbon radio recombination lines in absorption towards Cygnus A. *Mon. Not. R. Astron. Soc.* **437**, 3506-3515 (2014).
- Patil, A. H., S. Zaroubi, et al. (incl. B. Ciardi): Constraining the epoch of reionization with the variance statistic: simulations of the LOFAR case. *Mon. Not. R. Astron. Soc.* **443**, 1113-1124 (2014).
- Pawlik, A. H.; V. Bromm, and M. Milosavljevic: Assembly of the first disk galaxies under radiative feedback from the first stars. *Memorie della Societa Astron. Italiana*, **85**, 565 (2014).
- Pentericci, L., E. Vanzella, et al. (incl. M. Dijkstra): New observations of $z \sim 7$ galaxies: evidence for a patchy reionization. *Astrophys. J.* **793**, 113 (2014).
- Planck Collaboration (incl. MPA Planck group): Overview of products and scientific results. *Astron. Astrophys.* **571**, A1 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results - II. Low Frequency Instrument data processing. *Astron. Astrophys.* **571**, A2 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. III. LFI systematic uncertainties. *Astron. Astrophys.* **571**, A3 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. V. LFI calibration. *Astron. Astrophys.* **571**, A5 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. VI. High Frequency Instrument data processing. *Astron. Astrophys.* **571**, A6 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. VII. HFI time response and beams. *Astron. Astrophys.* **571**, A7 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. VIII. HFI photometric calibration and mapmaking. *Astron. Astrophys.* **571**, A8 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. IX. HFI spectral response. *Astron. Astrophys.* **571**, A9 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. X. HFI energetic particle effects: characterization, removal, and simulation. *Astron. Astrophys.* **571**, A10 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XI. All-sky model of thermal dust emission. *Astron. Astrophys.* **571**, A11 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XII. Diffuse component separation. *Astron. Astrophys.* **571**, A12 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XIII. Galactic CO emission. *Astron. Astrophys.* **571**, A13 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XIV. Zodiacal emission. *Astron. Astrophys.* **571**, A14 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XV. CMB power spectra and likelihood. *Astron. Astrophys.* **571**, A15 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XVI. Cosmological parameters. *Astron. Astrophys.* **571**, A16 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XVII. Gravitational lensing by large-scale structure. *Astron. Astrophys.* **571**, A17 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XVIII. The gravitational lensing-infrared background correlation. *Astron. Astrophys.* **571**, A18 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XIX. The integrated

- Sachs-Wolfe effect. *Astron. Astrophys.* **571**, A19 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XX. Cosmology from Sunyaev–Zeldovich cluster counts. *Astron. Astrophys.* **571**, A20 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XXI. Power spectrum and high-order statistics of the Planck all-sky Compton parameter map. *Astron. Astrophys.* **571**, A21 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XXIII. Isotropy and statistics of the CMB. *Astron. Astrophys.* **571**, A23 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XXIV. Constraints on primordial non-Gaussianity. *Astron. Astrophys.* **571**, A24 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XXV. Searches for cosmic strings and other topological defects. *Astron. Astrophys.* **571**, A25 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XXVI. Background geometry and topology of the Universe. *Astron. Astrophys.* **571**, A26 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results - XXVII. Doppler boosting of the CMB: Eppur si muove. *Astron. Astrophys.* **571**, A27 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XXVIII. The Planck Catalogue of Compact Sources. *Astron. Astrophys.* **571**, A28 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XXIX. The Planck catalogue of Sunyaev-Zeldovich sources. *Astron. Astrophys.* **571**, A29 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XXX. Cosmic infrared background measurements and implications for star formation. *Astron. Astrophys.* **571**, A30 (2014).
- Planck Collaboration (incl. MPA Planck group): Planck 2013 results. XXXI. Consistency of the Planck data. *Astron. Astrophys.* **571**, A31 (2014).
- Planelles, S., S. Borgani, et al. (incl. K. Dolag): On the role of AGN feedback on the thermal and chemodynamical properties of the hot intracluster medium. *Mon. Not. R. Astron. Soc.* **438**, 195-216 (2014).
- Pollack, J. E., R. Smith and C. Porciani: A new method to measure galaxy bias. *Mon. Not. R. Astron. Soc.* **440**, 555-576 (2014).
- Prat, V., and F. Lignieres: Shear mixing in stellar radiative zones - I. Effect of thermal diffusion and chemical stratification. *Astron. Astrophys.* **566**, A110 (2014).
- Prokhorov, D. A. and E. Churazov: Counting gamma rays in the directions of galaxy clusters. *Astron. Astrophys.* **567**, A93 (2014).
- Prokhorov, D. A. and S. de Jong: A morphological analysis for searches of possible extended Γ -ray sources associated with dark matter annihilation. *Mon. Not. R. Astron. Soc.* **441**, 2200-2207 (2014).
- Prokhorov, D. A.: An analysis of Fermi-LAT observations of the outskirts of the Coma cluster of galaxies. *Mon. Not. R. Astron. Soc.* **441**, 2309-2315 (2014).
- Rahmati, A., and J. Schaye: Predictions for the relation between strong H I absorbers and galaxies at redshift 3. *Mon. Not. R. Astron. Soc.* **438**, 529-547 (2014).
- Raicevic, M., A. Pawlik, J. Schaye, and A. Rahmati: The effect of recombination radiation on the temperature and ionization state of partially ionized gas. *Mon. Not. R. Astron. Soc.* **437**, 2816-2830 (2014).
- Rasia, E., E.T. Lau, et al. (incl. K. Dolag): Temperature structure of the intracluster medium from smoothed-particle hydrodynamics and adaptive-mesh refinement simulations. *Astrophys. J.* **791**, 96 (2014).

- Rathborne, J. M., S.N. Longmore, et al. (incl. D. Kruijssen): Turbulence sets the initial conditions for star formation in high-pressure environments. *Astrophys. J. Lett.* **795**, L25 (2014).
- Rathborne, J. M., S.N. Longmore, et al. (incl. D. Kruijssen): G0.253+0.016: a centrally condensed, high-mass protocluster. *Astrophys. J.* **786**, 140 (2014).
- Rau, S., S. Vegetti, and S. White: Lensing model of MACS J1149.5+2223 – I. Cluster mass reconstruction. *Mon. Not. R. Astron. Soc.* **443**, 957-968 (2014).
- Revnivtsev, M. G., R. Sunyaev, R. Krivonos et al.: Broadband spectrum of the total X-ray emission from the galaxy M31. *Astron. Lett.–A J. of Astron. and Space Astrophys.* **40**, 22-28 (2014).
- Revnivtsev, M. G., S. Tsygankov, E. Churazov and R. Krivonos: Hard X-ray emission of Sco X-1. *Mon. Not. R. Astron. Soc.* **445**, 1205-1212 (2014).
- Rosotti, G. P. et al. (incl. D. Kruijssen and S. Walch): Protoplanetary disc evolution affected by star-disc interactions in young stellar clusters. *Mon. Not. R. Astron. Soc.* **441**, 2094-2110 (2014).
- Röttgers, B., T. Naab and L. Oser: Stellar orbits in cosmological galaxy simulations: the connection to formation history and line-of-sight kinematics. *Mon. Not. R. Astron. Soc.* **445**, 1065-1083 (2014).
- Roychowdhury, S., J.N. Chengalur, S.S. Kaisin and I. D. Karachentsev: The relation between atomic gas and star formation rate densities in faint dwarf irregular galaxies. *Mon. Not. R. Astron. Soc.* **445**, 1392-1402 (2014).
- Sako, T., J. Paldus and G. Diercksen: Angular correlation in He and He-like atomic ions: a manifestation of the genuine and conjugate Fermi holes. *Physical Review A*, **89** (6) (2014).
- Salazar-Albornoz, S., A. Sanchez, N. Padilla and C. Baugh: Clustering tomography: measuring cosmological distances through angular clustering in thin redshift shells. *Mon. Not. R. Astron. Soc.* **443**, 3612-3623 (2014).
- Sales, L. V., F. Marinacci, V. Springel and M. Petkova: Stellar feedback by radiation pressure and photoionization. *Mon. Not. R. Astron. Soc.* **443**, 2990-3006 (2014).
- Sanchis-Gual, N., P. Montero, et al. (incl. E. Müller): Fully covariant and conformal formulation of the Z4 system in a reference-metric approach: comparison with the BSSN formulation in spherical symmetry. *Physical Review D*, **89** 104033 (2014).
- Sanders, J. S., A. Fabian, et al. (incl. E. Churazov,): The X-ray coronae of the two brightest galaxies in the Coma cluster. *Mon. Not. R. Astron. Soc.* **439**, 1182-1192 (2014).
- Sasdelli, M., P. Mazzali, E. Pian, et al.: Abundance stratification in type Ia supernovae – IV. The luminous, peculiar SN 1991T. *Mon. Not. R. Astron. Soc.* **445**, 711–725 (2014).
- Sasdelli, M. et al.: A metric space for Type Ia supernova spectra, *Mon. Not. R. Astron. Soc.* **443**, L34–L38 (2014).
- Scalzo, R. et al. (incl. M. Kromer and S. Taubenberger): Type Ia supernova bolometric light curves and ejected mass estimates from the Nearby Supernova Factory. *Mon. Not. R. Astron. Soc.* **440**, 1498-1518 (2014).
- Scalzo, R. A., Childress, et al. (incl. S. Taubenberger): Early ultraviolet emission in the type Ia supernova LSQ12gdj: no evidence for ongoing shock interaction. *Mon. Not. R. Astron. Soc.* **445**, 30–48 (2014).
- Scalzo, R. A., A. Ruiter, and S. Sim: The ejected mass distribution of type Ia supernovae: a significant rate of non-Chandrasekhar-mass progenitors. *Mon. Not. R. Astron. Soc.* **445**, 2535-2544 (2014).

- Schmidt, F., E. Pajer, and M. Zaldarriaga: Large-scale structure and gravitational waves - III. Tidal effects. *Physical Review D*, **89** (8): 083507 (2014).
- Schönrich, R., and M. Bergemann: Fundamental stellar parameters and metallicities from Bayesian spectroscopy: application to low- and high-resolution spectra. *Mon. Not. R. Astron. Soc.* **443**, 698-717 (2014).
- Seitzzahl, I. R., Summa, A., et al.: 5.9-keV Mn K-shell X-ray luminosity from the decay of ^{55}Fe in Type Ia supernova models. *Mon. Not. R. Astron. Soc.* **447**, 1484 (2014).
- Serra, P., L. Oser, et al. (incl. T. Naab): The ATLAS3D project – XXVI. H I discs in real and simulated fast and slow rotators. *Mon. Not. R. Astron. Soc.* **444**, 3388-3407 (2014).
- Shi, X., B. Joachimi, and P. Schneider: How well do third-order aperture mass statistics separate E- and B-modes? *Astron. Astrophys.*, **561** A68 (2014).
- Shi, X., and E. Komatsu: Analytical model for non-thermal pressure in galaxy clusters. *Mon. Not. R. Astron. Soc.* **442**, 521-532 (2014).
- Shiraishi, M., E. Komatsu and M. Peloso: Signatures of anisotropic sources in the trispectrum of the cosmic microwave background. *J. of Cosmo and Astrop. Phys.*, **4** 027 (2014).
- Shirazi, M., J. Brinchmann and A. Rahmati: Stars were born in significantly denser regions in the early universe. *Astrophys. J.*, **787**, 120 (2014).
- Shirazi, M., S. Vegetti, N. Nesvadba, et al.: The physical nature of the 8 o'clock arc based on near-IR IFU spectroscopy with SINFONI. *Mon. Not. R. Astron. Soc.* **440**, 2201-2221 (2014).
- Silva Aguirre, V., G. Ruchti, et al. (incl. A. Jendreieck): Old puzzle, new insights: a Lithium-rich giant quietly burning Helium in its core. *Astrophys. J. Lett.*, **784** L16 (2014).
- Smiljanic, R., A.J. Korn, M. Bergemann, et al.: The Gaia-ESO Survey: the analysis of high-resolution UVES spectra of FGK-type stars. *Astron. Astrophys.* **570** A122 (2014).
- Smith, R. E., D.S. Reed, D. Potter et al.: Precision cosmology in muddy waters: cosmological constraints and N-body codes. *Mon. Not. R. Astron. Soc.* **440**, 249-268 (2014).
- Sousa, S. G., N.C. Santos, et al. (incl. M. Bergemann): A new procedure for defining a homogenous line-list for solar-type stars. *Astron. Astrophys.* **570** A21 (2014).
- Spiniello, C., S. Trager, L. Koopmans, and C. Conroy: The stellar IMF in early-type galaxies from a non-degenerate set of optical line indices. *Mon. Not. R. Astron. Soc.* **438**, 1483-1499 (2014).
- Spiro, S., A. Pastorello, et al. (incl. S. Taubenberger): Low luminosity type II supernovae – II. Pointing towards moderate mass precursors. *Mon. Not. R. Astron. Soc.* **439**, 2873-2892 (2014).
- Stacy, A., A. Pawlik, V. Bromm, and A. Loeb: The mutual interaction between Population III stars and self-annihilating dark matter. *Mon. Not. R. Astron. Soc.* **441**, 822-836 (2014).
- Sternberg, A., A. Gal-Yam et al. (incl. W. Hillebrandt): Multi-epoch high-spectral-resolution observations of neutral sodium in 14 type Ia supernovae. *Mon. Not. R. Astron. Soc.* **443**, 1849-1860 (2014).
- Stringer, M. J., F. Shankar, et al. (incl. B. Moster): Galaxy size trends as a consequence of cosmology. *Mon. Not. R. Astron. Soc.* **441**, 1570-1583 (2014).
- Surman, R., et al. (incl. O. Just, and H.-T. Janka): Production of ^{56}Ni in black hole-neutron star merger accretion disc outflows. *J. of Phys. G: Nuclear and Particle Physics*, **41**(4), 044006 (2014).

- Suwa, Y.: From supernovae to neutron stars. *Publ. Astron. Soc. Japan*, **66**, L1 (2014).
- Suwa, Y. and Enoto, T.: Anisotropic neutrino effect on magnetar spin: constraint on inner toroidal field. *Mon. Not. Roy. Astron. Soc.*, **443**, 3586–3593 (2014).
- Suyu, S. H. et al. (incl. S. Hilbert and C. Spiniello): Cosmology from gravitational lens time delays and Planck data. *Astrophys. J. Lett.* **788**, L35 (2014).
- Takats, K., M. L. Pumo et al. (incl. S. Taubenberger): SN 2009N: linking normal and subluminous type II-P SNe. *Mon. Not. R. Astron. Soc.* **438**, 368–387 (2014).
- Takiwaki, T., K. Kotake, and Y. Suwa: A Comparison of Two- and Three-dimensional Neutrino-hydrodynamics Simulations of Core-collapse Supernovae. *Astrophys. J.* **786**, 83 (2014).
- Tanaka, M., Morokuma, et al. (incl. P. Mazzali): Discovery of dramatic optical variability in SDSS J1100+4421: A peculiar radio-loud narrow-line Seyfert 1 galaxy? *Astrophys. J. Lett.* **793**, L26 (2014).
- Tanaka, T. L.: Driving the growth of the earliest supermassive black holes with major mergers of host galaxies. *Classical and Quantum Gravity*. **31**, 24 (2014).
- Tanaka, T. L., and M. Li: The formation of massive black holes in $z \sim 30$ dark matter haloes with large baryonic streaming velocities. *Mon. Not. R. Astron. Soc.* **439**, 1092–1100 (2014).
- Thaler, I., and H. Spruit: Brightness of the Sun’s small scale magnetic field: proximity effects. *Astron. Astrophys.* **566**, A11 (2014).
- Toonen, S., J. Claeys, N. Mennekens, and A. Ruiter: PopCORN: hunting down the differences between binary population synthesis codes. *Astron. Astrophys.* **562**, A14 (2014).
- Travaglio, C., R. Gallino et al. (incl. W. Hillebrandt): Radiogenic p-isotopes from type Ia supernova, nuclear physics uncertainties, and galactic chemical evolution compared with values in primitive meteorites. *Astrophys. J.* **795**, 141 (2014).
- Übler, H., T. Naab, T., L. Oser et al.: Why stellar feedback promotes disc formation in simulated galaxies. *Mon. Not. R. Astron. Soc.* **443**, 2092–2111 (2014).
- Valenti, S. et al. (incl. S. Taubenberger and S. Benitez): PESSTO monitoring of SN 2012hn: further heterogeneity among faint type I supernovae. *Mon. Not. R. Astron. Soc.* **437**, 1519–1533 (2014).
- van Daalen, M. P., J. Schaye, I. McCarthy et al.: The impact of baryonic processes on the two-point correlation functions of galaxies, subhaloes and matters functions in dense environments. *Mon. Not. R. Astron. Soc.* **440**, 2997–3010 (2014).
- van Weeren, R. J. et al. (incl. Th. Enßlin and B. Ciardi): LOFAR low-band antenna observations of the 3C 295 and Boötes fields: source counts and ultra-steep spectrum sources. *Astrophys. J.* **793**, 22 (2014).
- Vedantham, H. K., L. Koopmans et al. (incl. B. Ciardi): Chromatic effects in the 21 cm global signal from the cosmic dawn. *Mon. Not. R. Astron. Soc.* **437**, 1056–1069 (2014).
- Vegetti, S., L. Koopmans, M. Auger, et al.: Inference of the cold dark matter substructure mass function at $z = 0.2$ using strong gravitational lenses. *Mon. Not. R. Astron. Soc.* **442**, 2017–2035 (2014).
- Vegetti, S., and M. Vogelsberger: On the density profile of dark matter substructure in gravitational lens galaxies. *Mon. Not. R. Astron. Soc.* **442**, 3598–3603 (2014).
- Velliscig, M., M. van Daalen, J. Schaye: The impact of galaxy formation on the total mass, mass profile and abundance of haloes. *Mon. Not. R. Astron. Soc.* **442**, 2641–2658 (2014).

- Vera-Ciro, C. A., L. Sales, A. Helmi and J. Navarro: The shape of dark matter subhaloes in the Aquarius simulations. *Mon. Not. R. Astron. Soc.* **439**, 2863–2872 (2014).
- Vikhlinin, A. A. et al. (incl. E. Churazov and R. Sunyaev): Clusters of galaxies. *Physics Uspekhi*, **57**(4), 317-341 (2014).
- Walker, E. S., P. Mazzali, E. Pian et al. Optical follow-up observations of PTF10qts, a luminous broad-lined type Ic supernova found by the Palomar Transient Factory. *Mon. Not. R. Astron. Soc.* **442**, 2768-2779 (2014).
- Wang, J., J. Fu, M. Aumer, G. Kauffmann et al.: An observational and theoretical view of the radial distribution of HI gas in galaxies. *Mon. Not. R. Astron. Soc.* **441**, 2159-2172 (2014).
- Wang, W., L. Sales, B. Henriques and S. White: Satellite abundances around bright isolated galaxies – II. Radial distribution and environmental effects. *Mon. Not. R. Astron. Soc.* **442**, 1363-1378 (2014).
- Weijmans, A.-M., P. de Zeeuw et al. (incl. Th. Naab): The ATLAS 3D project – XXIV. The intrinsic shape distribution of early-type galaxies. *Mon. Not. R. Astron. Soc.* **444**, 3340-3356 (2014).
- Woods, T. E., and M. Gilfanov: UV emission lines in passively evolving galaxies can reveal the progenitors of type Ia supernovae. *Astrophys. and Space Science*, **354**, 69-74 (2014).
- Woods, T. E., and M. Gilfanov: Emission-line diagnostics to constrain high-temperature populations in early-type galaxies. *Mon. Not. R. Astron. Soc.* **439**, 2351-2363 (2014).
- Wu, X., et al. (incl. T. Naab, and L. Oser): The mass and angular momentum distribution of simulated massive early-type galaxies to large radii. *Mon. Not. R. Astron. Soc.* **438**, 2701-2715 (2014).
- Wuyts, E., J. Kurk, et al. (incl. T. Naab): A consistent study of metallicity evolution at $0.8 < z < 2.6$: *Astrophys. J. Lett.* **789** L40 (2014).
- Yates, R. M., and G. Kauffmann: Dilution in elliptical galaxies: implications for the relation between metallicity, stellar mass and star formation rate. *Mon. Not. R. Astron. Soc.* **439**, 3817-3834 (2014).
- Yates, R.M., B. Henriques et al. (incl. G. Kauffmann and S.D.M. White): Reconciling the chemical properties of star-forming galaxies, the Milky Way, and local ellipticals. *Memorie della Societa Astronomica Italiana* **85**, 430 (2014).
- Young, L. M., N. Scott, et al. (incl. T. Naab): The ATLAS3D project – XXVII. Cold gas and the colours and ages of early-type galaxies. *Mon. Not. R. Astron. Soc.* **444**, 3408-3426 (2014).
- Zhuravleva, I., E. Churazov et al. (incl. R. Sunyaev): Turbulent heating in galaxy clusters brightest in X-rays. *Nature*, **515**, 85-87 (2014).

7.2 Konferenzbeiträge

- Barnabe, M., Spiniello, C., and L. Koopmans: Dissecting the 3D structure of elliptical galaxies with gravitational lensing and stellar kinematics. In: B. L. Ziegler, F. Combes, H. Dannerbauer, and M. Verdugo (Eds.), *Galaxies in 3D across the Universe* (IAU Symposium 309). Cambridge, UK: Cambridge University Press. p. 77-80 (2014).
- Bugli, M., Del Zanna, L., and N. Bucciantini: Mean field dynamo in thick disks around Kerr black holes: high order axisymmetric simulations. In: F. A. Aharonian, F. M. Rieger, J. M. Paredes, and G. E. Romero (Eds.), *Proceedings of the 4th High Energy Phenomena in Relativistic Outflows (HEPRO IV) Meeting* (p. 1460203-1-1460203-5 (2014).
- Cirasuolo, M., Afonso, et al. (incl. G. Kauffmann): MOONS: the Multi-Object Optical

- and Near-infrared Spectrograph for the VLT. In: *Ground-based and Airborne Instrumentation for Astronomy V* Eds. S. K. Ramsay, I. S. McLean and H. Takami. 1-13 (2014).
- Cordero-Carrion, I., and P. Montero: BSSN equations in spherical coordinates without regularization. In: A. Garcia-Parrado, F. C. Mena, F. Moura, and E. Vaz (Eds.), *Progress in Mathematical Relativity, Gravitation and Cosmology*, Berlin, Springer, p. 205-209 (2014).
- Cristini, A., R. Hirschi, et al. (M. Viallet): Linking 1D stellar evolution to 3D hydrodynamic simulations. In: G. Meynet, C. Georgy, J. Groh, and P. Stee (Eds.), *New Windows on Massive Stars, Asteroseismology, Interferometry and Spectropolarimetry (IAU Symposium 307)*. Cambridge, UK: Cambridge University Press. p. 98-99 (2014).
- D'Souza, D., and A. Weiss: Radiative levitation in massive stars: a self-consistent approach. In: G. Meynet, C. Georgy, J. Groh, and P. Stee (Eds.), *New Windows on Massive Stars, Asteroseismology, Interferometry and Spectropolarimetry (IAU Symposium 307)* (pp. 213-214). Cambridge, UK: Cambridge University Press. p. 213-214 (2014).
- Davis, T. A., Alatalo, K., et al. (incl. T. Naab): Spatially resolved molecular gas in early-type galaxies. In: T. Montmerle (Ed.), *Highlights of Astronomy as presented at the XXVIII IAU General Assembly, 2012*. p. 122-123 (2014).
- Enßlin, T.: Astrophysical data analysis with information field theory. In: *Bayesian Inference and Maximum Entropy Methods in Science and Engineering, MaxEnt*. Eds. R. K. Niven, B. Brewer, D. Paull et al. p. 49-54 (2013).
- Feroci, M., J. den Herder et al. (incl. M. Gilfanov): The Large Observatory for x-ray timing. In: T. Takahashi, J.-W.-A. den Herder, and M. Bautz (Eds.), *Space Telescopes and Instrumentation 2014: Ultraviolet to Gamma Ray* p. 1-20, (2014).
- Gatto, A., Fraternali, F., Marinacci, F. et al.: Estimating the galactic coronal density via ram-pressure stripping from dwarf satellites. In: A. Adamson, J. Davies, and I. Robson (Eds.), *The Labyrinth of Star Formation - Conference dedicated to Prof. Anthony Whitworth*. p. 167-169 (2014).
- Girichidis, P. and R. Banerjee: Impact of tangled magnetic fields on star formation. In: A. Adamson, J. Davies, and I. Robson (Eds.), *The Labyrinth of Star Formation - Conference dedicated to Prof. Anthony Whitworth*. p. 105-108 (2014).
- Hansen, C. J., Caffau, E., and M. Bergemann: Strontium in the era of Gaia and LAMOST. In: S. Feltzing, G. Zhao, N. A. Walton, and P. A. Whitelock (Eds.), *Setting the Scene for Gaia and LAMOST - The current and next Generations of Surveys and Models*. IAU Symposium 298. Cambridge, UK: Cambridge University Press. p. 409-409 (2014).
- Hirschmann, M., and T. Naab: The origin of metallicity gradients in massive galaxies at large radii. In: B. L. Ziegler, F. Combes, H. Dannerbauer, and M. Verdugo (Eds.), *Galaxies in 3D across the Universe (IAU Symposium 309)*. Cambridge, UK: Cambridge University Press. p. 117-120 (2014).
- Holman, K., Walch, S. K., Goodwin, S., and A. Whitworth: Mapping the present-day prestellar core mass function into the stellar IMF. In: A. Adamson, J. Davies, and I. Robson (Eds.), *The Labyrinth of Star Formation - Conference dedicated to Prof. Anthony Whitworth*. p. 309-315 (2014).
- Kolodzig, A., Gilfanov, M., Hütsi, G., and R. Sunyaev: Large-scale structure studies with AGN in the eROSITA/SRG all-sky survey. In: A. M. Mickaelian, and D. B. Sanders (Eds.), *Multiwavelength AGN Surveys and Studies (IAU Symposium 304)* Cambridge, UK: Cambridge University Press. p. 422-425 (2014).
- Kruijssen, J. M. D.: A galactic-scale origin for stellar clustering. In: A. Adamson, J. Davies, and I. Robson (Eds.), *The Labyrinth of Star Formation - Conference dedicated to Prof. Anthony Whitworth*. p. 437-441 (2014).

- Lomax, O., Whitworth, A. P. et al. (incl. S. Walch): Modelling star formation in Ophiuchus. In: A. Adamson, J. Davies, and I. Robson (Eds.), *The Labyrinth of Star Formation - Conference dedicated to Prof. Anthony Whitworth*. p. 109-113 (2014).
- Longmore, S. N., Kruijssen, J. M. D., Bastian, et al.: The formation and early evolution of young massive clusters. In: H. Beuther, R. S. Klessen, C. P. Dullemond, and T. Henning (Eds.), *Protostars and Planets VI* Tucson, Arizona, USA: University of Arizona Press. p. 291-316 (2014).
- Magic, Z., Collet, R., and M. Asplund: The Stagger-grid: a grid of 3D stellar atmosphere models. In: G. Alecian, Y. Lebreton, O. Richard and G. Vauclair (Eds.), *New Advances in Stellar Physics: From Microscopic to Macroscopic Processes*. p. 367-371 (2014).
- Marek, A., Rampp, M., Hanke, F., and H.-T. Janka: Towards petaflops capability of the VERTEX supernova code. In: M. Bader, A. Bode, H.-J. Bungartz, M. Gerndt, G. R. Joubert, and F. Peters (Eds.), *Parallel Computing: Accelerating Computational Science and Engineering (CSE)* Amsterdam IOP Press. p. 712-721 (2014).
- Marino, A. F.: Multiple stellar populations in the massive clusters M22 and Omega Centauri. In: T. Montmerle (Ed.), *Highlights of Astronomy as presented at the XXVIII IAU General Assembly*. p. 234-236 (2014).
- Martins, F., M. Bergemann, J. M. Bestenlehner, et al.: SpS5 - II. Stellar and wind parameters. In: T. Montmerle (Ed.), *Highlights of Astronomy as presented at the XXVIII IAU General Assembly, 2012*. p. 420-428 (2014).
- Melendez, B. E., Miller Bertolami, M. M., and L.G. Althaus: New axion bounds from the white dwarf luminosity function. *Revista Mexicana de Astronomia y Astrofisica*, 44, 48-48 (2014).
- Mitchell, J. P., Braithwaite, J., et al. (incl. H. Spruit, H.): Search for stable magnetohydrodynamic equilibria in barotropic stars. In: P. Petit, M. Jardine, and H. C. Spruit (Eds.), *Magnetic Fields throughout Stellar Evolution (IAU Symposium 302)*. Cambridge, UK: Cambridge University Press. p. 441-444 (2014).
- Morel, T., Castro, N., et al. (incl. H. Spruit): The B fields in OB stars (BOB) survey. In: G. Meynet, C. Georgy, J. Groh, and P. Stee (Eds.), *New Windows on Massive Stars, Asteroseismology, Interferometry and Spectropolarimetry (IAU Symposium 307)*. Cambridge, UK: Cambridge University Press. p. 342-347 (2014):
- Obergaulinger, M., Just, O., Janka, H.-T., et al: A new two-moment scheme with algebraic closure for energy-dependent multi-flavor neutrino transport in supernovae. In: N. V. Pogorelov, E. Audit, and G. P. Zank (Eds.), *8th International Conference of Numerical Modeling of Space Plasma Flows (ASTRONUM 2013)* p. 255-260 (2014).
- Pavlinsky, M., et al. (incl. E. Churazov, M. Gilfanov, R. Sunyaev): Status of ART-XC/SRG instrument. In: T. Takahashi, J.-W.-A. den Herder, and M. Bautz (Eds.), *Space Telescopes and Instrumentation 2014: Ultraviolet to Gamma Ray*, p. 1-11 (2014).
- Prat, V., Lignieres, F., and G. Lesur: New prescriptions of turbulent transport from local numerical simulations. In: G. Meynet, C. Georgy, J. Groh, and P. Stee (Eds.), *New Windows on Massive Stars, Asteroseismology, Interferometry and Spectropolarimetry (IAU Symposium 307)*. Cambridge, UK: Cambridge University Press. p. 70-75 (2014).
- Predehl, P., R. Andritschke, et al. (incl. R. Sunyaev): eROSITA on SRG. In: T. Takahashi, J.-W.-A. den Herder, and M. Bautz (Eds.), *Space Telescopes and Instrumentation 2014: Ultraviolet to Gamma Ray* (p. 1-6 (2014).
- Remus, R.-S., Dolag, K., Bachmann, L. K., et al.: Disk galaxies in the magneticum pathfinder simulations. In: B. L. Ziegler, F. Combes, H. Dannerbauer, and M. Verdugo (Eds.), *Galaxies in 3D across the Universe (IAU Symposium 309)* Cambridge, UK: Cambridge University Press. p. 145-148 (2014).
- Roychowdhury, S., Huang, M.-L., Kauffmann, G., and J. Chengalur: Kennicutt-Schmidt

- relation in the HI dominated regime. In: B. L. Ziegler, F. Combes, H. Dannerbauer, and M. Verdugo (Eds.), *Galaxies in 3D across the Universe (IAU Symposium 309)*. Cambridge, UK: Cambridge University Press. p. 341-341 (2014).
- Sales, L. V.: Origins of disks in simulations of spiral galaxies. In: M. S. Seigar, and P. Treuhardt (Eds.), *Structure and Dynamics of Disk Galaxies*. p. 97-104 (2014).
- Selig, M.: The NIFTy way of Bayesian signal inference. In: *Bayesian Inference and Maximum Entropy Methods in Science and Engineering, MaxEnt*. Eds. R. K. Niven, B. Brewer, D. Paull et al. p. 68-73 (2013).
- Shao, L.: A study of optical/IR selected AGNs with SDSS and WISE. In: A. M. Mickaelian, and D. B. Sanders (Eds.), *Multiwavelength AGN Surveys and Studies (IAU Symposium 304)* Cambridge, UK: Cambridge University Press. p. 213-216 (2014).
- Spruit, H.: Accretion disks. In: I. Gonzalez Martinez-Pais, T. Shabaz, and J. Casares Velazquez (Eds.), *Accretion Processes in Astrophysics*, New York, Cambridge University Press, p. 1-44 (2014).
- Teklu, A., Remus, R.-S., Dolag, K., and A. Burkert: The angular momentum dichotomy. In: B. L. Ziegler, F. Combes, H. Dannerbauer, and M. Verdugo (Eds.), *Galaxies in 3D across the Universe (IAU Symposium 309)*. Cambridge, UK: Cambridge University Press. p. 349-349 (2014).
- Walch, S. K.: Star formation triggered by feedback from massive stars. In: A. Adamson, J. Davies, and I. Robson (Eds.), *The Labyrinth of Star Formation - Conference dedicated to Prof. Anthony Whitworth*. p. 173-179 (2014).
- White, S. (2014). The influence of halo evolution on galaxy structure. In: T. Montmerle (Ed.), *Highlights of Astronomy as presented at the XXVIII IAU General Assembly, 2012*. p. 371-371 (2014).
- Yates, R. M., Kauffmann, G., Thomas, et al: Reconciling the chemical properties of star-forming galaxies, the Milky Way, and local ellipticals. *Memorie della Societa Astronomica Italiana*, 85(2), 430-433 (2014).
- Yates, R. M., and G. Kauffmann: Dilution in massive, elliptical galaxies. *Memorie della Societa Astronomica Italiana*, 85(2), p. 426-429 (2014).

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