

# Garching

## Max-Planck-Institut für Astrophysik

Karl-Schwarzschild-Straße 1, Postfach 1317, 85741 Garching,  
Tel.: (0 89) 30000-0, Telefax: (0 89) 30000-2235  
e-Mail: [user@mpa-garching.mpg.de](mailto:user@mpa-garching.mpg.de)

### 0 Allgemeines

#### 0.1 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 ist es in dem neuen Gebäude einen größeren Hörsaal (130 Sitze), die Computer Gruppe, sowie die Verwaltung (MPE/MPA) unterzubringen. Die Räumlichkeiten im Altbau sollen dann von den MPA Wissenschaftler/innen genutzt werden. Voraussichtliches Ende der Bauarbeiten ist Frühjahr 2013.

### 1 Personal und Ausstattung

#### 1.1 Personalstand

*Direktoren und Professoren:*

M. Asplund (bis 31.8.), W. Hillebrandt [-2200](Geschäftsführender Direktor bis 31.12.2011),  
R. Sunyaev [-2244], S.D.M. White [-2211] (Geschäftsführender Direktor ab 1.1.2012).

*Sekretariat und Verwaltung:*

C. Rickl [Sekr. Geschäftsführung, -2201]

M. Ihle [Verwaltungsleiter, -3600]

*Auswärtige Wissenschaftliche Mitglieder:*

R. Giacconi, R.-P. Kudritzki, W. Tscharnuter.

*Emeritierte Wissenschaftliche Mitglieder:*

H. Billing, R. Kippenhahn, F. Meyer, H.U. Schmidt, E. Trefftz.

*Wissenschaftliche Mitarbeiter:*

R. Angulo, A. Bauswein, M. Bell, M. Bergemann, A. Bogdan (bis 31.1.), P.M. Bottino (1.2.-31.5.), L. Casagrande (bis 31.12.), B. Catinella, P. Cerda-Duran (bis 31.10.), E. Churazov, B. Ciardi, R. Collet (bis 14.10.), A. Cooper, I. Cordero-Carrión, M. Dijkstra, J. Donnert (1.7.-30.9.), M. Dotti (bis 28.2.), T. Enßlin, M. Fink (bis 31.5.), J. Fu, M. Gabler (seit 1.12.), M. Gilfanov, T. Greif, M. Grossi (bis 31.7.), A. Gualandris, S. Hachinger (1.7.-30.9.), B. Henriques, C. Hernandez-Monteagudo (bis 14.4.), G. Hütsi (seit 1.10.), H.-T. Janka, P. Jofre-Pfeil (bis 30.4.), J. Johansson (seit 27.9.) G. Kauffmann, R. Khatri, S. Khedekar (seit 21.9.) K. Kovac (bis 31.12.), R. Krivonos, M. Kromer, D. Kruijssen (seit 20.7.), K. Lind, G. Lemson, M. Maciejewski, A. Marino, I. Maurer (bis 31.5.), P. Mazzali, B. Metcalf (bis 28.2.), S. Mineo (1.9.-31.10.), P. Montero, B. Moster, B. Müller, E. Müller, T. Naab, M.F. Nieva (bis 30.6.), R. Overzier (bis 31.8.), Biswajit Pandey (seit 1.2.), M. Reinecke, G. Ruchti, A. Ruiter, A. Saintonge, L. Sales, L. Sbordone (bis 14.6.), C. Scoccola (bis 21.6.), I. Seitenzahl (bis 31.5.), F. Shankar (bis 31.5.), H.C. Spruit, A. Sternberg (seit 15.12.), T. Tanaka (seit 1.9.), S. Taubenberger, S. Tsygankov (bis 30.6.), S. Walch (seit 1.11.), A. Weiss, R. Wiersma (bis 30.9.), A. Wongwathanarat (seit 1.3.). I. Zhuravleva (seit 1.11.)

*Doktoranden:*

R. Andrassy\* (seit 1.9.), M. Aumer, P. Baumann, S. Benitez, V. Biffi\*, A. Chung\* (sinc 1.9.), B. Ciambur\* (seit 1.9.), F. Ciaraldi-Schoolmann, F. De Gasperin, J. Donnert (bis 31.6.), P. Edelmann, S. Fabello\*, M. Gabler (bis 25.11.), L. Graziani\*, S. Hachinger (bis 30.6.), F. Hanke, N. Hariharan\* (seit 1.9.), M. Herzog, M. Hilz, L. Hüdepohl, M.L. Huang, F. Ianuzzi\*, A. Jendreieck\* (seit 1.8.), A. Jeesson-Daniel\*, H. Junklewitz, O. Just, S. Karl (bis 31.10.), F. Koliopanos\* (seit 1.9.), A. Kolodzig\* (seit 1.4.), N. Krachmalnikoff\* (bis 31.12.), C. Laporte\*, M. Li, Z.W. Liu, N. Lyskova\*, T. Mädler (bis 28.2.), Z. Magic\*, F. Miczek, S. Mineo\* (bis 31.8.), U. Nöbauer, N. Oppermann, L. Oser, M. Petkova\* (bis 31.8.), E. Plumbi\* (seit 1.10.), L. Porter\*, S. Rau, T. Rembiasz\*, M. Sasdelli\* (seit 10.10.), R. Schönrich (bis 30.11.), M. Selig (seit 1.11.), V. Silva\*, F. Stasyszyn (bis 28.2.)\*, I. Thaler\*, M. Ugliano\*, M. van Daalen\*, J. von Grootte, M. Wadepuhl, J. Wang, A. Wongwathanarat\* (bis 28.2.), T. Woods\* (seit 12.9.), R. Yates, Z. Zhang\*, I. Zhuraleva\* (bis 31.10.).

*Diplomanden, Bachelor- und Masterstudenten:*

T. Ertl (seit 14.11.), M. Gänsler (seit 14.3.), E. Gall (bis 15.11.), N. Heners (seit 15.5.), S. Lutter (bis 15.11.), U. Nöbauer (bis 1.2.), M. Selig (bis 20.9.), M. Uhlig (bis 1.11.), H. Weingartner (bis 1.11.), L. Winderling (seit 1.10.)

*Technisches Personal - PLANCK Programmierer:*

U. Dörl, W. Hovest, J. Knoche, J. Rachen, J. Robbers, T. Riller.

*Systemadministratoren:*

H.-A. Arnolds, B. Christandl, N. Grüner, H.-W. Paulsen.

*Sekretariat:*

M. Depner, S. Gründl, G. Kratschmann, K. O'Shea, C. Rickl (Skr. Geschäftsführung).

*Bibliothek:*

E. Blank, E. Chmielewski (Leitung), C. Hardt.

---

\*IMPRS (International Max-Planck Research School)

## 1.2 Gebäude und Bibliothek

Die Bibliothek befindet sich im Astrogebäude und wird von Wissenschaftlern zweier Institute genutzt, dem Max-Planck-Institut für Astrophysik und dem Max-Planck-Institut für extraterrestrische Physik. Die Bibliothek besitzt aktuell (2011) ca. 45.000 Bücher und Konferenzproceedings, sowie Abonnements für ca. 200 wissenschaftliche Zeitschriften. Seit dem 1.1.2010 wird ein neues System verwendet, das von der Max-Planck Digital Library in Zusammenarbeit mit dem Fachinformationszentrum Karlsruhe entwickelt worden ist.

## 1.3 Personelle Veränderungen

Benedetta Ciardi: erhielt den Italienischen Verdienstorden (Cavaliere della Repubblica Italiana)

Hans-Thomas Janka: erhielt den *Hanno und Ruth Roelin-Preis* für Wissenschaftspublizistik 2011.

Markus Kromer: erhielt die *Otto-Hahn-Medaille* der Max-Planck-Gesellschaft.

Rainer Moll: erhielt den *Kippenhahn Preis* für die beste Publikation der Doktoranden 2011.

Rashid Sunyaev: erhielt die *2012 Franklin Medaille in Physik* sowie den *2011 Kyoto Preis* in Wissenschaften.

Hendrik Spruit: erhielt den *George Ellery Hale Prize* für hervorragende Leistung in der Sternphysik.

Simon White: erhielt (zusammen mit drei anderen Astronomen) den *Gruber Kosmologie Preis*.

## 2 Gäste

Pavel Abolmasov (Moskau Univ.) 12.11.–11.12.; Marcelo Alvarez (CITA, Kanada) 6.3.–3.4.; Mashhor Al Wardat (Talal, Jordan) 25.5.–22.8.; Patricia Arevalo (Univ. Cat. Chile) 1.7.–30.7.; Tony Banday (Toulouse, Frankreich) 2.3.–16.3. ; Isabelle Baraffe (ENS, Lyon, Frankreich) 3.7.–2.8.; Altan Baykal (Ankara, Türkei) 22.7.–15.8.; Andrey Belyaev (St. Petersburg) seit 15.11.; Sergey Blinnikov (ITEP, Moskau) 1.8.–10.9.; Akos Bogdan (CfA, Cambridge, USA) 5.6.–18.6.; Volker Bromm (Texas Univ., USA) 8.4.–11.6.; Matt Browning (CITA, Kanada) 14.2.–28.2.; Brian Chaboyer (ENS, Lyon, Frankreich) 3.7.–2.8. ; Jens Chluba (CITA, Kanada) 6.10.–18.10.; Nikolay Chugai (Inst. of Astron. Moskau) 28.2.–30.3.; Peter Cotrell (Christchurch, Neuseeland) 15.5.–15.8.; Ismail Ferrero (Cordoba, Argentinien) seit 1.10.; Charles Gammie (Univ. of Illinois, USA) 1.4.–21.7.; Nicolas Grevesse (Liege, Belgien) 3.7.–21.7.; Qi Guo (Peking, China) 27.11.–11.12.; Carlos Hernandez Monteagudo (Teruel, Spanien) 1.6.–20.6.; Gerd Hütsi (Tallin, Estland) 15.2.–15.5.; Nail Inogamov (Landau Inst. Moskau) bis 27.2.; und 15.11.–14.12.; Emille Ishida (IPMU, Kashiwa, Japan) 1.5.–9.7.; Anatoly Iyudin (Moskau, Russland) 4.7.–16.7.; Francisco Kitaura (AIP, Potsdam) 1.4.–30.6.; Sergey Komarov (IKI Moskau, Russland) 1.7.–31.7.; Rolf-Peter Kudritzki (Hawaii Observ.) 1.1.–31.12.; Cheng Li (Shanghai Obs., China) 2.10.–30.11. ; Ming Li (CAS, China) seit 2.11.; Zhengwei Liu (CAS, China) seit 18.1.; Tina Lund (Aarhus, Dänemark) 7.3.–6.6.; Claudia Maraston (Portsmouth, U.K.) 8.4.–8.5.; Lyudmilla Mashonkina (RAS, Moskau) 30.5.–10.6.; Akira Mizuta (Chiba Univ., Japan) 2.8.–11.9.; Dmitriy Nadyozhin (ITEP Moskau) 14.3.–14.5.; Biman Nath (Raman Res. Inst. Bangalore Indien) 18.3.–17.6.; Julio Navarro (Victoria, Kanada) 8.5.–21.5.; Sergey Nayakshin (Leicester, U.K.) 4.7.–4.8.; Ken Nomoto (Univ. of Tokyo, Japan) 28.8.–10.9.; Yeisson Osorio (Uppsala Univ.) 17.10.–05.11.; Francisco Prada (IAA, Spanien) 7.4.–7.5.; und 1.7.–30.7.; Eliot Quataert (Berkeley, USA) 3.7.–22.7.; Maurizio Salaris (Liverpool, U.K.) 6.7.–17.7. ; Michelle Sasdelli (Trieste, Italien) 17.4.–1.5. ; (und 8.9.–24.9.); Sergey Sazonov (IKI Moskau) 5.1.–13.2. ; (und 15.7.–21.8.); Pat Scott (Montreal, Kanada) 4.7.–24.7. ; Nikolay Shakura (Sternberg Astron. Moskau) 12.11.–11.12.; Stuart Sim (Stromlo Obs, Australien) 13.3.–27.3.; Daniel Thomas (Portsmouth, U.K.) 8.4.–8.5.; Rajat Thomas (CITA, Kanada) 7.3.–11.4.; Alexei

Tolstov (ITEP, Moskau) 1.8.–21.8.; Victor Utrobin (ITEP, Moskau) 17.10.–16.12.; Freeke van de Voort (Leiden Univ.) 7.2.–6.8.; Shinya Wanajo (CLUSTER Gast) 1.1.–31.12.; Wenting Wang (Shanghai Observ.) bis 15.11.; Jing Wang (USTC China) bis 14.11.; Tim White (Sydney, Australien) 9.11.–21.1.; Stuart Wytthe (Melbourne, Australien) 9.2.–8.3.; Phillip Zukin (Cambridge, USA) 1.8.–31.8.

### 3 Lehrtätigkeit, Prüfungen und Gremientätigkeit

#### 3.1 Lehrtätigkeiten

W. Hillebrandt: WS 2010/2011 and WS 2011/2012 TU München  
 T.A. Enßlin: SS 2011 und WS 2011/2012 (seminar), LMU München  
 H.-Thomas Janka: SS 2011, TU München  
 E. Müller: WS 2010/2011 und SS 2011, TU München  
 H. Ritter: WS 2010/2011, LMU München  
 A. Weiss: SS 2011, LMU München

#### 3.2 Sonstige Kurz-Vorlesungen

M. Asplund: “The chemical composition of the Sun and solar-type stars” (Center of Planetary Science, Kobe, Japan, 10.1-15.1)  
 M. Dijkstra: “Probing the Epoch of Reionization with Lyman Alpha Emitting Galaxies + X-Ray heating during the Epoch of Reionization” (ETH Zürich, 7.4 –8.4)  
 A. Weiss: “Stellar Structure and Evolution” (IMPRS on Astrophysics, Garching, 24.10.–28.10.)  
 R. Sunyaev: Kyoto Prize Commemorative lecture, (Kyoto Kongress Hall, 11.11.)  
 – Hendrik de Waard Jubilee Lecture, (Groningen, 24.5.)

#### 3.3 Gremientätigkeit

M. Asplund: – Sloan Digital Sky Survey Collaboration Council; – Vorsitz des Joint Astronomical Colloquium Komitee; – Wissenschaftlicher Beirat - Virtual Atomic and Molecular Data Centre; – Steering Committee, Gaia-ESO Survey; – GMT Instrumental Development Advisory Panel; – IAU Kommission 36 president; – IAU Kommission 29 organizing committee.  
 B. Ciardi: – Mitglied des Wissenschaftsrat von IAU Kommission 47 (Kosmologie); – Vorsitzende des Wissenschaftlichen Rats von GLOW (German LOng Wavelength) Konsortium; – Projektleiterin der Arbeitsgruppe LOFAR am MPA.  
 T. Enßlin: – Berichterstatter für Planck Ausschuss; – Projektleiter des Datenanalysezentrum PLANCK am MPA; – Doktoranden Auswahlkomitee, Genf Univ.; – Doktoranden Auswahlkomitee, Bologna Univ.; – Diplomstudenten Auswahlkomitee, LMU München.  
 M. Gilfanov: Vorsitz des Ausschuss für Antragsbewertung von CHANDRA.  
 W. Hillebrandt: – Beirat, Rechenzentrum Garching; – Senatsausschuss Wettbewerb, Leibniz Gemeinschaft; – Vorsitzender/Ausschuss ESO Observing Programmes Committee; – Beratungskomitee Astrophysics, GIF; – Internationaler Beratungsausschuss, Oskar Klein Centre, Stockholm; – Wissenschaftsrat, Zentrum für Astronomie, Univ. Heidelberg  
 G. Kauffmann: – Mitglied des Organisationskomitee “Joint Kolloquium”; – Stellvertretende Gleichstellungsbeauftragte am MPA; – Mitglied des Kavli Preis Komitees – Astromet, Vorsitzende der Arbeitsgruppe “wide field spectroscopy” – Bewerbungskomitee, Uni Stockholm

E. Müller: – Vorstandsmitglied des Sonderforschungsbereichs “Transregio Gravitationswellenastronomie”; – Vorsitzender des Benutzerkomitees und Beirat am Rechenzentrum Garching (RZG/IPP); – Betriebsratvorsitzender am MPA; – Mitglied des Bewerbungskomitee für MPA Postdoktoranden

A. Weiss: Mitarbeitervertreter, CPT-Sektion der Max-Planck-Gesellschaft

S.D.M. White: – verschiedene Berufungskommissionen der CPT-Sektion der MPG; – Mitglied des Beratungsausschusses “Canadian Institute for Advanced Research, Cosmology and Gravity Program”; – Vorsitzender/Beratungsausschuss, ICC Durham Univ., England; – Mitglied/Beratungsausschuss, Kavli Institut für Astronomie und Astrophysik, Peking, China; – – Mitglied des Führungs-/Wissenschaftskomitee, Institut Lagrange de Paris, Frankreich.

## 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.

### 4.1 Dissertationen

*Abgeschlossen:*

Julius Donnert: On the diffuse non-thermal emission from galaxy clusters. Ludwig-Maximilians-Universität München.

Michael Gabler: Coupled core-crust-magnetosphere oscillations of magnetars. Technische Universität München.

Stephan Hachinger: Analysis of spectra of Type I Supernovae with radiative transfer models. Technische Universität München.

Steffen Hess: Particle hydrodynamics with tessellation techniques. Ludwig-Maximilians Universität München.

Simon Karl: The Antennae Galaxies - a key to galactic evolution. Ludwig-Maximilians-Universität München.

Thomas Mädler: Axially symmetric space-times and the characteristic formulation of general relativity. Technische Universität München.

Stefano Mineo: X-ray emission from star-forming galaxies. Ludwig-Maximilians Universität München.

Margarita Petkova: Numerical radiative transfer and the hydrogen reionization of the universe. Ludwig-Maximilians Universität München.

Till Sawala: Simulations of Dwarf Galaxy Formation. Ludwig-Maximilians Universität München.

Ralph Schönrich: Structure, kinematics and chemistry of the Milky Way Galaxy. Ludwig-Maximilians Universität München.

Victor Silva: Mixing processes in stellar interiors: new insights from asteroseismology. Ludwig-Maximilians Universität München.

Federico Stasyszyn: Smoothed particle magneto-hydro-dynamics for cosmological applications. Ludwig-Maximilians-Universität München.

Jing Wang: The relation between morphology, star formation rate and gas fraction in galaxies. Univ. of Science and Technology of China.

Annop Wongwathanarat: Multidimensional simulations of core collapse supernovae using

a two-patch overset grid in spherical coordinates. Technische Universität München.

Irina Zhuravleva: Radiative transfer in hot gas of galaxy clusters: constraints on ICM turbulence. Ludwig-Maximilians Universität München.

*Laufend:*

Monique Alves-Cruz: S-process in extremely metal-poor stars. Ludwig-Maximilians- Universität.

Robert Andrassy: Convective overshooting in stars by 3-D simulations. University of Amsterdam.

Michael Aumer: Simulations of Disk Galaxy Evolution. Ludwig-Maximilians-Universität.

Patrick Baumann: Chemical composition of solar-type stars and its impact on planet-hosting. Ludwig-Maximilians-Universität.

Sandra Benitez: Model-Independent Reconstruction of the Expansion History of the Universe. Technische Universität München.

Veronica Biffi: Studying the physics of galaxy clusters by simulations and X-ray observations. Ludwig-Maximilians-Universität.

Andrew Chung: High-redshift Lyman- $\alpha$ 945; Emitters. Ludwig-Maximilians-Universität.

Bogdan Ciambur: Extensions of semi-analytic modelling to the study of the galaxy population evolution with redshift. Ludwig-Maximilians-Universität.

Franco Ciaraldi-Schoolmann: Stochastic modeling of Type Ia supernovae explosions in Large Eddy Simulations. Technische Universität München.

Francesco De Gasperin: Cosmological Evolution of Supermassive Black Holes With LO-FAR. Ludwig-Maximilians-Universität.

Philipp Edelmann: Hydrodynamical simulations coupled to nuclear reaction networks in stellar astrophysics. Technische Universität München.

Silvia Fabello: HI properties of nearby galaxies from ALFALFA data stacking. Ludwig-Maximilians-Universität.

Luca Graziani: Cosmological Radiative Transfer through metals in CRASH. Ludwig-Maximilians-Universität.

Florian Hanke: Three-dimensional simulations of core-collapse supernovae using a detailed neutrino transport description. Technische Universität München.

Nitya Hariharan: Numerical Developments of the Radiative Transfer code CRASH. Technische Universität München.

Matthias Herzog: Dynamical Simulations of Phase Transitions in Compact Stars. Technische Universität München.

Michael Hilz: Evolution of Elliptical Galaxies. Ludwig-Maximilians-Universität.

Lorenz Hüdepohl: Neutrino cooling evolution of newly formed proto neutron stars. Technische Universität München.

Mei-Ling Huang: Radially resolved star formation histories of disk galaxies. Ludwig-Maximilians-Universität.

Francesca Iannuzzi: Studying the survival of galaxies in hydrodynamical simulations of clusters. Ludwig-Maximilians-Universität.

Akila Jeesson-Daniel: Lyman Alpha Emitters around the Epoch of Reionization. Ludwig-Maximilians-Universität.

Andressa Jendrieck: Stellar Parameter Estimation for Kepler Stars. Ludwig-Maximilians-Universität.

- Henrik Junklewitz: Magnetic Field Statistics and Information field theory. Ludwig-Maximilians-Universität.
- Oliver Just: Numerical models of hyper-accreting post-merger accretion tori. Technische Universität München.
- Simon Karl: The Antennae Galaxies - a key to galactic evolution. Ludwig-Maximilians-Universität.
- Filippos Koliopanos: Radiation processes in compact X-ray sources. Ludwig-Maximilians-Universität.
- Alexander Kolodzig: AGN in the eROSITA all-sky survey: Statistics and correlation properties. Ludwig-Maximilians-Universität.
- Chervin Laporte: Galaxies in clusters. Ludwig-Maximilians-Universität.
- Natalya Lyskova: Physics of hot gas in elliptical galaxies. Ludwig-Maximilians-Universität.
- Zazralt Magic: Theoretical models for cool stars including multidimensional atmospheres. Ludwig-Maximilians-Universität.
- Fabian Miczek: Simulation of low Mach number astrophysical flows. Technische Universität München.
- Ulrich Nöbauer: A Monte Carlo Approach to Radiation Hydrodynamics in Astrophysical Environments. Technische Universität München.
- Niels Oppermann: Non-Gaussianities in Cosmology. Ludwig-Maximilians-Universität.
- Ludwig Oser: Galaxy Formation and Evolution. Ludwig-Maximilians-Universität.
- Else Pillumbi: Nucleosynthesis studies for supernova and binary merger ejecta. Technische Universität München.
- Laura Porter: Modelling dust in cool stellar and substellar atmospheres. Ludwig-Maximilians-Universität.
- Stefan Rau: Gravitational lensing studies of dark matter halos. Ludwig-Maximilians-Universität.
- Tomasz Rembiasz: Non-ideal MHD instabilities and turbulence in core collapse supernovae. Technische Universität München.
- Michele Sasdelli: Principal Components Analysis of type Ia supernova spectra. Ludwig-Maximilians-Universität.
- Marco Selig: Information Theory Based High Energy Photon Imaging. Ludwig-Maximilians-Universität.
- Irina Thaler: Solar magnetohydrodynamics. Uni Amsterdam.
- Marcella Ugliano: Explosion and remnant systematics for neutrino-driven supernovae. Technische Universität München.
- Marcel van Daalen: Correlation functions from the Millennium XXL simulation. Ludwig-Maximilians-Universität.
- Janina von Groote: Hydrodynamic modelling of the accretion-induced collapse of white dwarfs with detailed neutrino transport. Technische Universität München.
- Markus Wadepuhl: Simulations of the formation of a Milky Way like galaxy. Technische Universität München.
- Tyrone Woods: The Progenitors of Type Ia Supernovae. Ludwig-Maximilians-Universität.
- Rob Yates: Metal enrichment in galaxy formation models. Ludwig-Maximilians-Universität.
- Zhongli Zhang: Low-mass X-ray binaries in early-type galaxies. Ludwig-Maximilians-Universität.

## 4.2 Diplomarbeiten

*Abgeschlossen:*

Elisabeth Gall: Interpreting the Near-Infrared Spectra of Type I Supernovae using the “Golden Standard” of SN2005cf as an Example. Technische Universität München.

Stefan Lutter: Evolution and Stability of Disk Galaxies. Ludwig-Maximilians Universität, München.

Ulrich Nöbauer: Monte Carlo radiation hydrodynamics. Technische Universität München.

Marco Selig: Information field theory for high energy astronomy Technische Universität München.

Maximilian Uhlig: Cosmic ray driven Winds in Galaxies. Technische Universität München.

Maximilian Ullher: Eine Faradaykarte der Milchstraße unter Annahme approximativer Symmetrien. Ludwig-Maximilians Universität, München.

Helin Weingartner: Statistische Modellierung und Rekonstruktion von diffuser Röntgenstrahlung von Galaxienhaufen. Technische Universität München.

## 5 Tagungen, Projekte am Institut und Beobachtungszeiten

### 5.1 Beobachtungszeiten

M. Bergemann (MPA), K. Lind (MPA), M. Asplund (MPA) 02.07 - 08.07, Solar Swedish Telescope, Tenerife, Spain Benchmarking atomic models for stellar abundance analysis using spatially resolved solar lines

B. Catinella and L. Cortese (ESO): 03.5.–16.05. Arecibo radiotelescope, PR, USA Characterizing the properties of gas-rich galaxies at  $z$  0.2 and higher.

B. Catinella, S. Fabello, A. Cooper (MPA), C. Hummels, J. Lemonias (Columbia), S. Moran (JHU), R. Wu (CEA): 11.01.–09.12. Arecibo radiotelescope, PR, USA (observations carried out remotely from MPA and other institutions) Measuring the HI content of massive galaxies (GALEX Arecibo SDSS Survey).

W. Hillebrandt, F.K. Roepke, M. Kromer, S. Taubenberger, M. Fink, S. Benitez, S. Hachinger: several nights in 2011, University of Hawaii 2.2m Telescope, Mauna Kea, Hawaii, SNIFS, Measuring H $\alpha$  with Type IIP Supernovae.

K. Lind, M. Bergemann (MPA), M. Asplund (MPA), D. Kiselman (Stockholm Observatory) Solar Swedish Telescope, La Palma, 22.06.-08.07. Benchmarking atomic models for stellar abundance analysis using spatially resolved solar lines.

K. Lind, M. Asplund, F. Primas (ESO), C. Charbonnel (Geneva Observatory), F. Grundahl (Aarhus University), 27.06, 29.06., 05.08., FLAMES spectrograph at VLT/UT2 Paranal, Chile. The Li content of M30, the most metal-poor globular cluster in the Galaxy. (All observations done in service mode).

H. Spruit, I. Thaler (MPA), G. Scharmer(ISP): 1.6.–7.6., Swedish 1-m Solar Telescope, La Palma, Canarias. Effect of weak magnetic fields on the Sun’s brightness.

S. Taubenberger, W. Hillebrandt, P.A. Mazzali, F. Patat (ESO), N. Elias-Rosa (Caltech), S. Benetti (Padova), I. Agnoletto (Padova), V. Stanishev (Lisbon), A. Pastorello (Belfast): 6 nights in 2011, service observations, Calar Alto 2.2m Telescope, Calar Alto, Spain, CAFOS, The contribution of Supernovae to the cosmic chemical evolution.

S. Taubenberger, W. Hillebrandt, P.A. Mazzali, F. Patat (ESO), N. Elias-Rosa (Barcelona), S. Benetti (Padova), F. Bufano (Padova), V. Stanishev (Lisbon), A. Pastorello (Belfast): 6 nights in 2011, service observations, Calar Alto 2.2m Telescope, Calar Alto, Spain, CAFOS, The contribution of Supernovae to the cosmic chemical evolution.



S. Taubenberger, S. Benetti (Padova), K. Maeda (Tokyo), P.A. Mazzali, J. Sollerman (Stockholm), D. Sauer (Stockholm), V. Stanishev (Lisbon), G. Leloudas (Copenhagen), F. Bufano (Padova), A. Harutyunyan (St. Cruz de La Palma), F. Patat (ESO), N. Elias-Rosa (Caltech), M. Stritzinger (Stockholm), G. Pignata (Santiago de Chile), I. Maurer, S. Hachinger, F.K. Roepke, W. Hillebrandt: 18.3 hr of service observations, VLT-Antu, Paranal, Chile, FORS2, Constraining the explosion mechanism of type Ia supernovae through late-phase spectroscopy.

S. Taubenberger, S. Benetti (Padova), K. Maeda (Tokyo), P.A. Mazzali, J. Sollerman (Stockholm), V. Stanishev (Lisbon), G. Leloudas (Copenhagen), F. Bufano (Padova), A. Harutyunyan (St. Cruz de La Palma), F. Patat (ESO), N. Elias-Rosa (Barcelona), M. Stritzinger (Stockholm), G. Pignata (Santiago de Chile), I. Maurer, S. Hachinger, F.K. Roepke, M. Kromer, W. Hillebrandt: 7.4 hr of service observations, VLT-Antu, Paranal, Chile, FORS2, Constraining the explosion mechanism of type Ia supernovae through late-phase spectroscopy.

## 5.2 Vorträge und Gastaufenthalte

### *Übersichtsvorträge*

M. Asplund: 7th International School of Planetary Sciences (Kobe, Japan, 10.1-15.1) – Origin of the elements (Trento, Italy, 16.5-20.5) – Galactic archaeology (Shuzenji, Japan, 1.11-5.11) – Origin of matter and evolution of Galaxies (Tokyo, Japan, 14.11-17.11) – OMEG5 (Tokyo, Japan, 18.11)

G. Börner: Die Entwicklung des Kosmos. Jahresversammlung der Nationalen Akademie der Wissenschaften Leopoldina (Halle, 23.9.-25.9.)

B. Ciardi: The first galaxies workshop (Ringberg, Germany 27.06.–01.07) – Gas in Galaxies: from Cosmic Web to Molecular Clouds (Seeon, Germany 14.06.–18.06) – GRBs as probes: from the progenitors' environment to the high redshift universe (Como, Italy, 16.05.–20.05.) – Ringberg Workshop on Galaxy Evolution (Ringberg, Germany, 18.04.–21.04.)

E. Churazov: Astrophysics and Cosmology with Galaxy Clusters, (Santa Barbara, 14.3.-18.3.) – Fornax, Virgo, Coma et al., (Garching, 27.6.-1.7.) – JENAM 2011, (St.Petersburg, Russia, 4.7.-8.7.) – 2011 Chandra Science Workshop, (Boston, USA, 12.7.-14.7.)

M. Dijkstra The Cosmic Odyssey of Baryons conference (Marseille, France, 20.6-24.6) – Hydrogen Cosmology Workshop (Cambridge, MA, USA, 16.5 – 20.5)

T.A. Enßlin: Primordial Magnetism Workshop (Arizona State University, 30.3.–2.4.) – 2011 Ringberg Workshop on Galaxy Evolution (Ringberg Castle, 17.4.-22.4.) – A fresh view of the radio sky: science with LOFAR, SKA and its pathfinders (Annual meeting of the Astronomische Gesellschaft, Heidelberg, 19.9.-23.9.)

M. Gilfanov: Multifrequency behavior of High Energy Cosmic Sources Frascati Workshop 2011 (Vulcano, Italy, 23.5-28.5) – European Week of Astronomy and Space Science JENAM-2011 (St.Petersburg, Russia, 4.7-8.7) – Binary Paths to Type Ia Supernovae Explosions IAU Symposium 281 (Padova, Italy, 3.7-8.7) – X-ray Astrophysics up to 511 keV (Ferrara, Italy, 14.9-16.9) – LOFT Science meeting (Amsterdam, The Netherlands, 26.10-28.10) – High Energy Astrophysics - 2011 (Moscow, Russia, 13.12-16.12)

T. Greif: Virgo Meeting (17.4.-21.4.) – First Galaxies Workshop, (26.6.-1.7.)

W. Hillebrandt: Advanced Topics in Astrophysics (Llafranc, Costa Brava, 4.5 -6.5.)

H.-Th. Janka: Physics of neutron stars (St. Petersburg, Russia, 11.7.–15.7.) – Explosive Ideas about Massive Stars – from Observations to Modeling (Stockholm, Sweden, 10.8.–13.8.)

G.Kauffmann: Celebrating the career of A. Wolfe, (Ringberg, Germany, 1.7-4.7) – Galaxy Formation, (Durham, UK, 18.7.-22.7.)

B. Müller: “Multi-dimensional core-collapse supernova simulations with VERTEX , Hamburg Neutrinos from Supernova Explosion (Hamburg, Germany, 19.7.-23.7.)

E. Müller: “Fusion and Astrophysical Plasmas , 478th Heraeus Seminar, (Bad Honnef, Germany, 18.4.-20.4.) – – Advanced Topics in Astrophysics , Conference, (Llafranc, Spain, 4.5.-6.5.) – – Explosive Ideas about Massive Stars - from Observations to Modeling , Conference, (Stockholm, Sweden, 10.8.-13.8.)

Th. Naab: ESO workshop: Fornax, Virgo, Coma et al.: Stellar systems in high-density environments (27.6. - 1.7.)

H. Ritter: The Golden Age of Cataclysmic Variables and Related Objects, (Palermo, Italy, 12.9.-17.9.)

H. Spruit: 218th meeting of the American Astronomical Society, (Boston MA, USA, 21.5.–26.5.) – – Annual Meeting, Solar Physics Division of the AAS, (Las Cruces NM, USA, 13.6.–17.6.) – – Nonequilibrium Dynamics in Astrophysics and Material Science (Kyoto, Japan, 31.10.–3.11.) – – Transients in Astrophysics (Hsinchu, Taiwan, 12.12.–16.12.)

R. Sunyaev: Physics of Neutron Stars - (St. Petersburg, Russia, 11.7.–15.7.) – – A new era for sz science, (Santander, Spain, 27.6.-30.6.) – – Cosmology with X-ray and Sunyaev-Zeldovich Effect Observations of Galaxy Clusters (Huntsville, USA, 19.9.–22.9.) – – High Energy Astrophysics Today and Tomorrow (Moscow, Russia, 13.12.–16.12.)

A. Weiss: 20-th Stellar Pulsation Conference, (Granada, Spain, 5.9.–9.9.)

S. White: Fine-scale structure in the dark matter distribution, (Toronto, Canada, 28.3.–30.3.) – – 8th Sino-German Workshop, (Shanghai, China, 26.4.–29.4.) – – Symposium on Dark Matter, (Baltimore, USA, 2.5.–5.5.) – – Conference on Galaxy Formation, (Durham, U.K. 18.7.–22.7.) – – International Conference on Particle Physics and Cosmology, (Porto, Portugal, 22.8.–26.8.) – – First eRosita International Conference on Mapping the Structure of the Energetic Universe, (Garmisch-Partenkirchen, Germany 17.10.–20.10.)

#### *Kolloquiumsvorträge*

R. Angulo: AIP, Postdam 2.12.

M. Asplund: ANU Canberra; 24.2.

B. Catini: Swinburne University of Technology GEM Seminar Melbourne, Australia, 30.11.; – ASTRON-JIVE, Dwingeloo, The Netherlands, 23.06.; – Sydney, Australia, 20.11.–23.11.; – Durham, UK, 18.07.–22.07.; – HI Pathfinder Workshop, Perth, Western Australia, 02.02.–04.02.

B. Ciardi: Pisa, Italy; 07.12.

M. Dijkstra: Cambridge University, 22.2.; – Oscar Klein Center, Stockholm, 23.3.; – Geneva Observatory, Geneva, 5.4.; – Massachusetts Institute of Technology, Cambridge, MA, U.S.A, 17.5.; – Scuola Normale Superiore, Pisa, Italy, 22.11.

T.A. Enßlin: Workshop Ringberg Castle, 22.7.; – IAS Orsay, 1.12.; – Bayes Forum, MPE Garching, 12.12.

T. Greif: KIPAC Stanford 7.11.; – Columbia New York 12.11. – Harvard ITC 16.11.; – IPMU Tokio 3.8.; – Kyoto University 7.8.; – Sapporo University 12.8.p; – Tsukuba Campus 14.9.

A. Gualandris: University of Milano Bicocca, 25.3.

H.-Th. Janka: TU Darmstadt, 17.2.; – CEA/Saclay, 20.10.

G. Kauffmann: University of Western Australia; 31.1.; – Max Planck Institute for Radio Astronomy, 3.6.; – Institute for Theoretical Astrophysics, Oslo, 7.10.

M. Kromer: IAAT Tübingen; 30.05.

G. Lemson: CAS Seminar, JHU Baltimore, 8.2.

E. Müller: MPC Mainz; 25.5.

G. Ruchti: Ljubljana University; 25.5.; – Lund University; 15.09.

#### *Öffentliche Vorträge*

R. Angulo: Osorno, Chile (28.12.).

M. Asplund: Fundacion BBVA, Madrid (3.10).

G. Börner: MPA Open House, Garching (15.10.).

E. Churazov: Nürnberg Planetarium (4.12.).

T.A. Enßlin: Volkssternwarte Rosenheim (16.6).

H.-Th. Janka: DESY Hamburg (20.7.). – MPA Open House, Garching (15.10.). – Café & Kosmos, München (8.11.).

D. Kruijssen: Dutch Radio 2, NCRV Cappuccino (13.8.). – Dutch Radio 2, NCRV Cappuccino (27.8.). – Dutch Radio 1, BNN Today (29.8.).

K. Lind (contributed talk): Subaru 3rd international conference, Shuzenji, Japan (02.11.).

Z. Magic: MPA Open House, Garching (15.10.)

E. Müller: Lehrerfortbildung Dachau (7.7.). – Open House, MPA Garching (15.10.). – MPG day, MPA Garching (11.11.).

B. Müller: Volkssternwarte Winzer (9.4.)

G. Robbers: MPA Open House, Garching (15.10.)

R. Schönrich: MPA Open House, Garching (15.10.)

R. Sunyaev: John Bahcall Lecturership, USA National Air and Space Museum (21.10.). – Space Telescope Science Institute (26.10.). – Goddard Space Flight Center (27.10.).

S. White: MPA Open House, Garching (15.10.)

### 5.3 Kooperationen

E. Müller und H.-Th. Janka vom MPA sind mit zwei Teilprojekten am Sonderforschungsbereich/Transregio 7, “Gravitationswellenastronomie” beteiligt (Verwaltung des SFB in Jena) Der SFB beschäftigt sich hauptsächlich mit der theoretischen Modellierung der kosmischen Quellen der Gravitationsstrahlung, der Verbesserung des Detektorenkonzeptes und der Auswertung der zu erwartenden Gravitationswellensignale. (Beteiligte Institute: Univ. Hannover, Univ. Tübingen, Univ. Jena)

H.-Th. Janka hat ein Teilprojekt in dem Neutrino-Sonderforschungsbereich (TR27). Der SFB wird vom Physik-Department der TU München verwaltet. Beteiligte Institute sind: Univ. Karlsruhe, Univ. Tübingen, MPI f. Physik München, MPI f. Kernphysik Heidelberg. Nach den jüngsten Erfolgen in der Neutrinophysik greift dieser SFB zentrale Themen, sowohl im Experiment als auch in der Theorie auf.

S. White und W. Hillebrandt sind in dem Transregio TR33 “Dunkles Universum” mit Teilprojekten involviert. Beteiligte Institute sind: Univ. Heidelberg, Univ. Bonn und Ludwig-Maximilians-Univ. München.

A. Asplund, W. Hillebrandt, S. White u.v.m. Excellence Cluster Universe - Origin and Structure of the Universe - Beteiligte Institute: Ludwig-Maximilians-Univ. München, Technische Univ. München, ESO sowie die Max-Planck Institute f. Astrophysik, extraterrestrische Physik, Plasmaphysik, Halbleiterlabor Neuperlach

### 5.4 EU Netzwerke - 2011 aktiv:

– “Planck Surveyor” (S. White, T. Enßlin);

– LACEGAL (Latin, American, Chinese, European Galaxy Formation Network) - Projekt-

leiter am MPA: S. White. Beteiligte Institute: University of Durham, Universität Leiden, Agencia Estatal Consejo Superior De Investigaciones Cientifica, University of Sussex, University of Nottingham, Universita Degli Studi Di Trieste, Shanghai Astronomical Observatory, Consejo Nacional De Investigaciones Cientificas Y Tecnicas, Universidade de Sao Paulo, Universidad Nacional Autonoma De Mexico, Pontificia Universidad Catolica De Chile, Instituto Nacional de Astrofisica Optica y Electronica Mexico, Institute for Theoretical Studies Heidelberg, Kapteyn Institute Groningen, Niederlande.

– CosmoComp (Early Stage Training Network) - Koordinator am MPA ist S. White. (Internationales Netzwerk) Beteiligte Institute sind: Durham, Nottingham, Sussex (England); Triest (Italien), Leiden (Niederlande), Barcelona (Spanien), Shanghai (China) und Buenos Aires, (Argentinien). Computer simulationen zum besseren Verständnis des frühen Universums.

## 5.5 Andere Netzwerke

DAAD - Projektbezogener Personenaustausch mit Tschechien (Projektleiter am MPA: Markus Kromer)

## 6 Veröffentlichungen

### 6.1 In Zeitschriften und Büchern

Aihara, H., P. Allende et al. (incl. S. White): The eighth data release of the sloan digital sky survey: first data from SDSS-III. *Astrophys. J. Suppl.* **193**, id. 29, 1–17 (2011).

Alatalo, K., L. Blitz et al. (incl. T. Naab): Discovery of an Active Galactic Nucleus Driven Molecular Outflow in the Local Early-type Galaxy NGC 1266. *Astrophys. J.* **735**, id. 88, 1–12 (2011).

Allevato, V., A. Finoguenov, et al. (incl. F. Shankar): The XMM-Newton Wide Field Survey in the COSMOS Field: Redshift Evolution of AGN Bias and Subdominant Role of Mergers in Triggering Moderate-luminosity AGNs at Redshifts up to 2.2. *Astrophys. J.* **736**, id. 99, 1–15 (2011).

Anicin, I.V., V. Pejovic et al. incl. A. Weiss: On the possibility to simultaneously determine the long-term average fluxes of solar pp-neutrinos and cosmic ray muons. *Modern Phys. Lett.* **26**, 1267–1271 (2011).

Arcavi, I., et al. (incl. S. Hachinger und P. Mazzali): SN 2011dh: discovery of a type IIb supernova from a compact progenitor in the nearby galaxy M51. *Astrophys. J. Lett.* **742**, id. L18, 1–7 (2011).

Arcones, A. und H.-T. Janka: Nucleosynthesis-relevant conditions in neutrino-driven supernova outflows - II. The reverse shock in two-dimensional simulations. *Astron. Astrophys.* **526**, A160, 1–13 (2011).

Aslanbeigi, S., G. Robbers, B. Foster et al.: Phenomenology of gravitational aether as a solution to the old cosmological constant problem. *Phys. Rev. D* **84** 10, 1–9

Barbuy, B., M. Spite et al. (incl. Sh. Wanajo): First stars. XV. Third-peak r-process element and actinide abundances in the uranium-rich star CS31082-001 *Astron. Astrophys.* **534**, A60, 1–12 (2011).

Baruteau, C., J. Cuadra und D.N. Lin: Binaries migrating in a gaseous disk: Where are the galactic center binaries? *Astrophys. J.* **726**, id. 28, 1–19 (2011).

Bastuerk, Oe, T.H. Dall, R. Collet et al.: Bisectors of the HARPS cross-correlation function. The dependence on stellar atmospheric parameters. *Astron. Astrophys.* **535**, A17, 1–12 (2011).

Bazot, M., M.J. Ireland et al. (incl. M. Asplund): The radius and mass of the close solar twin 18 Scorpii derived from asteroseismology and interferometry. *Astron. Astrophys.*

- 526**, id. L4, 1–4 (2011).
- Bedding, T., B. Mosser et al. (incl. V. Silva): Gravity modes as a way to distinguish between hydrogen- and helium-burning red giant stars. *Nature* **471**, 608–611 (2011).
- Bell, M., H. Junklewitz und T. Enßlin: Faraday caustics: Singularities in the Faraday spectrum and their utility as probes of magnetic field properties *Astron. Astrophys.* **535**, A85, 1–14 (2011).
- Bell, M., D. Roberts und J. Wardle: Structure and magnetic fields in the precessing jet system SS 433 - III. Evolution of the intrinsic brightness of the jets from a deep multi-epoch very large array campaign. *Astrophys. J.* **736**, 118, 1–14 (2011).
- Benetti, S., M. Turatto, et al. (incl. S. Taubenberger): The Type Ib SN 1999dn: one year of photometric and spectroscopic monitoring. *Mon. Not. R. Astron. Soc.* **411**, 2726–2738 (2011).
- Bensby, T., D. Aden, et al. (incl. M. Asplund): Chemical evolution of the Galactic bulge as traced by microlensed dwarf and subgiant stars. IV. Two bulge populations *Astron. and Astrophys.* **533**, A134, 1–20 (2011).
- Bergemann, M.: Ionization balance of Ti in the photospheres of the Sun and four late-type stars. *Mon. Not. R. Astron. Soc.* **413**, 2184–2198 (2011).
- Bernardi, M., N. Roche, F. Shankar und R. Sheth: Curvature in the colour-magnitude relation but not in colour-omega. *Mon. Not. R. Astron. Soc.* **412**, 684–704 (2011).
- Biffi, V., K. Dolag und H. Böhringer: Velocity structure diagnostics of simulated galaxy clusters. *Mon. Not. R. Astron. Soc.* **413**, 573–584 (2011).
- Birkl, R., N. Stergioulas und E. Müller: Stationary, axisymmetric neutron stars with meridional circulation in general relativity. *Phys. Review D.* **84**, 023003, 1–21 (2011).
- Blinnikov, S., I. Panov, M. Rudzsky, und K. Sumiyoshi: The equation of state and composition of hot, dense matter in core-collapse supernovae. *Astron. Astrophys.* **535**, A37, 1–13 (2011).
- Blondin, S., D. Kasen, F. Röpke et al.: Confronting 2D delayed-detonation models with light curves and spectra of Type Ia supernovae. *Mon. Not. R. Astron. Soc.* **417**, 1280–1302 (2011).
- Bogdan, A., R.P. Kraft et al. (incl. E. Churazov): Chandra and ROSAT observations of Abell 194: detection of an X-ray cavity and mapping the dynamics of the cluster. *Astrophys. J.* **743**, id. 59, 1–11 (2011).
- Bogdan, A., und M. Gilfanov: Soft-band X/K luminosity ratios in late-type galaxies and constraints on the population of supersoft X-ray sources. *Mon. Not. R. Astron. Soc.* **412**, 401–410 (2011).
- Bois, M., E. Emsellem et al. (incl. T. Naab): The Atlas3D Project - VI. Simulations of binary galaxy mergers and the link with Fast Rotators, Slow Rotators, and Kinematically Distinct Cores accepted by *Mon. Not. R. Astron. Soc.* **416**, 1654–1679 (2011).
- Bonanos, A., N. Castro, L. Macri und R.-P. Kudritzki: The Distance to the Massive Eclipsing Binary LMC-SC1-105 in the Large Magellanic Cloud. *Astrophys. J. Lett.* **729**, L9, 1–6 (2011).
- Bonifacio, P., E. Caffau et al. (incl. L. Sbordone): Extremely metal-poor stars in SDSS fields. *Astron. Nachrichten*, **332**, 251–257 (2011).
- Bordoloi, R., S.J. Lilly et al (incl. K. Kovac): The radial and azimuthal profiles of Mg II absorption around  $0.5 < z < 0.9z$  COSMOS galaxies of different colors, masses, and environments. *Astrophys. J.* **743**, id. 10, 1–11 (2011).
- Bournaud, F., A. Dekel et al. (incl. F. Shankar): Black Hole growth and AGN obscuration by instability-driven inflows in high-redshift disk galaxies fed by cold streams.

- Astrophys. J. Lett. **741**, L33, 1–6 (2011).
- Boylan-Kolchin, M., G. Besla und L. Hernquist: Dynamics of the Magellanic Clouds in a Lambda cold dark matter universe. *Mon. Not. R. Astron. Soc.* **414**, 1560–1572 (2011).
- Briquet, M., C. Aerts et al. (incl. M. F. Nieva): An asteroseismic study of the O9V star HD 46202 from CoRoT space-based photometry. *Astron. Astrophys.* **527**, A112, 1–8 (2011).
- Brown, J.C., H.E Potts, L. Porter und G. Le Chat: Mass loss, destruction and detection of Sun-grazing and -impacting cometary nuclei. *Astron. Astrophys.* **535**, A71, 1–12 (2011).
- Bürzle, F., et al. (incl. T. Greif und K. Dolag): Protostellar collapse and fragmentation using an MHD gadget *Mon. Not. R. Astron. Soc. Lett.* **412**, 171–186 (2011).
- Burenin, R.A., M. Revnivtsev et al. (incl. R. Sunyaev): Fast optical variability of SS 433. *Astron. Lett.*, **37**, 100–112 (2011).
- Caffau, E., P. Bonifacio et al. (incl. L. Sbordone): An extremely primitive star in the galactic halo. *Nature* **477**, 67–69 (2011).
- Caffau, E., P. Bonifacio et al. (incl. L. Sbordone): X-Shooter GTO: chemical analysis of a sample of EMP candidates. *Astron. Astrophys.* **534**, A4, 1–8 (2011).
- Campisi, M. A., U. Maio, R. Salvaterra und B. Ciardi: Population III stars and the Long Gamma Ray Burst rate. *Mon. Not. R. Astron. Soc.* **416**, 2760–2767 (2011).
- Cannon, J., R. Giovanelli et al. (incl. A. Saintonge): The Survey of H I in Extremely Low-mass Dwarfs (SHIELD). *Astrophys. J. Lett.* **739**, L22, 1–7 (2011).
- Cano, Z., D. Bersier et al. (incl. P. Mazzali): A tale of two GRB-SNe at a common redshift of  $z=0.54$ . *Mon. Not. R. Astron. Soc.* **413**, 669–685 (2011).
- Cano, Z., D. Bersier et al. (incl. P. Mazzali): XRF 100316D/SN 2010bh and the Nature of Gamma-Ray Burst Supernovae. *Astrophys. J.* **740**, id. 41, 1–17 (2011).
- Cappellari, M., E. Emsellem et al. (incl. T. Naab): The ATLAS3D project - I. A volume-limited sample of 260 nearby early-type galaxies: science goals and selection criteria. *Mon. Not. R. Astron. Soc.* **413**, 813–836 (2011).
- Cappellari, M., E. Emsellem et al. (incl. T. Naab): The ATLAS3D project - VII. A new look at the morphology of nearby galaxies: the kinematic morphology-density relation. *Mon. Not. R. Astron. Soc.* **416**, 1680–1696 (2011).
- Casagrande, L., R. Schönrich, M. Asplund, et al.: New constraints on the chemical evolution of the solar neighbourhood and Galactic discs. Improved astrophysical parameters for the Geneva-Copenhagen Survey. *Astron. Astrophys.* **530**, A138, 1–21 (2011).
- Chaplin, W.J., H. Kjeldsen, et al. (incl. V. Silva): Ensemble asteroseismology of solar-type stars with the NASA Kepler Mission. *Science J.* **332**, 213–216 (2011).
- Chiavassa, A., E. Pasquato, A. Jorissen, et al.: Radiative hydrodynamics simulations of red supergiant stars. III. Spectro-photocentric variability, photometric variability, and consequences on Gaia measurements. *Astron. Astrophys.* **528**, A120, 1–18 (2011).
- Chluba, J. und R. M. Thomas: Towards a complete treatment of the cosmological recombination problem. *Mon. Not. R. Astron. Soc.* **412**, 748–764 (2011).
- Chugai, N. N., E. Churazov, R.A. Sunyaev: Type Ia supernovae and stellar winds in relativistic bubbles driven by active galactic nuclei. *Mon. Not. R. Astron. Soc.* **414**, 879–887 (2011).
- Churazov, E., S. Sazonov, S. Tsygankov et al: Positron annihilation spectrum from the galactic centre region observed by SPI/INTEGRAL revisited: annihilation in a cooling ISM?. *Mon. Not. R. Astron. Soc.* **411**, 1727–1743 (2011).

- Civano, F., M. Brusa et al. (incl. F. Shankar): The Population of High-redshift Active Galactic Nuclei in the Chandra-COSMOS Survey. *Astrophys. J.* **741**, id. 91, 1–11 (2011).
- Clark, P., S. Glover, et al. (incl. T. Greif): The Formation and Fragmentation of Disks Around Primordial Protostars *Science*, **331**, 1040–1042 (2011).
- Collet, R., W. Hayek, M. Asplund et al.: Three-dimensional surface convection simulations of metal-poor stars. The effect of scattering on the photospheric temperature stratification. *Astron. Astrophys.* **528**, A32. 1–12 (2011).
- Cooper, A. P., D. Martinez-Delgado, J. Helly et al.: The Formation of Shell Galaxies Similar to NGC 7600 in the Cold Dark Matter Cosmogony. *Astrophys. J. Lett.* **743**, L21, 1–6 (2011).
- Cooper, A.P., S. Cole, C. Frenk und A. Helmi: A two-point correlation function for Galactic halo stars *Mon. Not. R. Astron. Soc.* **417**, 2206–2215 (2011).
- Cordero-Carrión, I., J.M. Ibanez und J. Morales-Lladosa: Maximal slicings in spherical symmetry: local existence and construction. *J. Math. Phys.* **52**, id. 112501, 1–16 (2011).
- Corsi, A., E.O. Ofek et al. (incl. P. Mazzali): PTF 10bzf SN 2010ah: A Broad-line Ic Supernova Discovered by the Palomar Transient Factory. *Astrophys. J.* **741**, id. 76, 1–13 (2011).
- Cortese, L., B. Catinella, S. Boissier, et al.: The effect of the environment on the H I scaling relations. *Mon. Not. R. Astron. Soc.* **415**, 1797–1806 (2011).
- Cui, W.G., V. Springel, X.H. Yang et al.: Properties of fossil groups in cosmological simulations and galaxy formation models. *Mon. Not. R. Astron. Soc.* **416**, 2997–3008 (2011).
- D’Angelo, C. und H. Spruit: Long-Term evolution of Discs around Magnetic Stars *Mon. Not. R. Astron. Soc.* **416**, 893–906 (2011).
- D’Antona, F., A. D’Ercole, A. Marino et al.: The Oxygen versus Sodium (anti) correlation(s) in omega Cen *Astrophys. J.* **736**, id. 5, 1–9 (2011).
- Das, S., T. Marriage, et al. (incl. C. Hernandez-Monteagudo): The Atacama Cosmology Telescope: a measurement of the cosmic microwave background power spectrum at 148 and 218 GHz from the 2008 southern survey. *Astrophys. J.* **729**, id. 62, 1–16 (2011).
- Davis, T., M. Bureau et al. (incl. T. Naab): The ATLAS3D project - V. The CO Tully-Fisher relation of early-type galaxies. *Mon. Not. R. Astron. Soc.* **414**, 968–984 (2011).
- Davis, M., A. Nusser et al. (incl. G. Lemson): Local gravity versus local velocity: solutions for beta and non-linear bias. *Mon. Not. R. Astron. Soc.* **413**, 2906–2922 (2011).
- Davis, T., K. Alatalo, et al (incl. T. Naab): The Atlas3D project - X. On the origin of the molecular and ionised gas in early-type galaxies. *Mon. Not. R. Astron. Soc.* **417**, 882–899 (2011).
- De Boni, C., K. Dolag, S. Ettori et al.: Hydrodynamical simulations of galaxy clusters in dark energy cosmologies - I. General properties. *Mon. Not. R. Astron. Soc.* **415**, 2758–2772 (2011).
- De Gasperin, F., A. Mennella, D. Maino et al.: Effect of Fourier filters in removing periodic systematic effects from CMB data. *Astron. Astrophys.* **529**, A141, 1–10 (2011).
- De Gasperin, F., A. Merloni et al. (incl. G. Kauffmann): Testing black hole jet scaling relations in low-luminosity active galactic nuclei. *Mon. Not. R. Astron. Soc.* **415**, 2910–2919 (2011).
- De Silva, G. M., K.C. Freeman, et al. (incl. M. Asplund): High-resolution elemental abundance analysis of the Hyades supercluster. *Mon. Not. R. Astron. Soc.* **415**, 563–575

- (2011).
- Decarli R., M. Dotti und A. Treves: Geometry and inclination of the broad-line region in blazars. *Mon. Not. R. Astron. Soc.* **413**, 39–46 (2011).
- Degraf, C., T. Di Matteo und V. Springel: Black hole clustering in cosmological hydrodynamic simulations: evidence for mergers. *Mon. Not. R. Astron. Soc.* **413**, 1383–1394 (2011).
- Dijkstra, M., A. Mesinger und S. Wyithe: The detectability of Ly $\alpha$  emission from galaxies during the epoch of reionization. *Mon. Not. R. Astron. Soc.* **414**, 2139–2147 (2011).
- Dolag, K., M. Kachelriess, S. Ostapchenko und R. Tomas: Lower limit on the strength and filling factor of extragalactic magnetic fields. *Astrophys. J. Lett.* **727**, L4, 1–4 (2011).
- Duc, P.A., J. Cuillandre et al. (incl. T. Naab): The Atlas-3D project - IX. The merger origin of a fast and a slow rotating Early-Type Galaxy revealed with deep optical imaging: first results. *Mon. Not. R. Astron. Soc.* **417**, 863–881 (2011).
- Dunkley, J., R. Hlozek et al. (incl. C. Hernandez-Monteagudo): The Atacama Cosmology Telescope: cosmological parameters from the 2008 power spectrum. *Astrophys. J.* **739**, id. 52, 1–20 (2011).
- Durant, M., T. Shahbaz et al. (incl. H. Spruit): High time resolution optical/X-ray cross-correlations for X-ray binaries: anticorrelations and rapid variability. *Mon. Not. R. Astron. Soc.* **410**, 2329–2338 (2011).
- Eisenstein, D.J. et al. (incl. G. Kauffmann und S. White): SDSS-III: massive spectroscopic surveys of the distant universe, the Milky Way, and extra-solar planetary systems. *Astron. J.* **142**, id. 72, 1–24 (2011).
- Elmegreen, D.M., B.G. Elmegreen et al. (incl. D. Gadotti): Grand design and flocculent spirals in the Spitzer survey of stellar structure in galaxies (S4G). *Astrophys. J.* **737**, id. 32, 1–17 (2011).
- Emsellem, E., M. Cappellari et al. (incl. T. Naab): The ATLAS3D project - III. A census of the stellar angular momentum within the effective radius of early-type galaxies: unveiling the distribution of fast and slow rotators. *Mon. Not. R. Astron. Soc.* **414**, 888–912 (2011).
- Enke, H., M. Steinmetz et al. (incl. T. Enßlin): AstroGrid-D: Grid technology for astronomical science. *New Astron.* **16**, 79–93 (2011).
- Enßlin, T. und M. Frommert: Reconstruction of signals with unknown spectra in information field theory with parameter uncertainty. *Physical Review D* **83**, id. 105014, 1–20 (2011).
- Enßlin, T., C. Pfrommer, F. Miniati und K. Subramanian: Cosmic ray transport in galaxy clusters: implications for radio halos, gamma-ray signatures, and cool core heating. *Astron. Astrophys.* **527**, A99, 1–21 (2011).
- Evans, C. J., Davies, R.-P. Kudritzki et al.: Stellar metallicities beyond the Local Group: the potential of J-band spectroscopy with extremely large telescopes. *Astron. Astrophys.* **527**, A50, 1–13 (2011).
- Fabello, S., B. Catinella, et al. (incl. G. Kauffmann): ALFALFA HI Data Stacking I. Does the Bulge Quench Ongoing Star Formation in Early-Type Galaxies? *Mon. Not. R. Astron. Soc.* **411**, 993–1012 (2011).
- Fabello, S., G. Kauffmann, B. Catinella, et al.: ALFA HI Data Stacking II. HI content of the host galaxies of AGN *Mon. Not. R. Astron. Soc.* **416**, 1739–1744 (2011).
- Fabjan, D., S. Borgani et al. (incl. K. Dolag): X-ray mass proxies from hydrodynamic simulations of galaxy clusters - I *Mon. Not. R. Astron. Soc.* **416**, 801–816 (2011).



- Fauvet, L., et al (incl. T. Banday und A. Waelkens): Joint 3D modelling of the polarized galactic synchrotron and thermal dust foreground diffuse emission. *Astron. Astrophys.* **526**, A145, 1–13 (2011).
- Fedeli, C., et al. (incl. M. Grossi und K. Dolag): The effect of primordial non-Gaussianity on the skeleton of cosmic shear maps. *Mon. Not. R. Astron. Soc.* **416**, 3098–3107 (2011).
- Font, A.S. et al. (incl. A. Cooper und S. White): The population of Milky Way satellites in the Lambda CDM cosmology. *Mon. Not. R. Astron. Soc.* **417**, 1260–1279 (2011).
- Font, A. S., I.G. McCarthy (et al. incl. R. Wiersma): Cosmological simulations of the formation of the stellar haloes around disc galaxies. *Mon. Not. R. Astron. Soc.* **416**, 2802–2820 (2011).
- Fraser, M., M. Ergon et al. (incl. S. Taubenberger): SN 2009md: another faint supernova from a low-mass progenitor. *Mon. Not. R. Astron. Soc. Vol.* **417**, 1417–1433 (2011).
- Freudling, W. L. Staveley-Smith, B. Catinella et al.: Deep 21 cm H I observations at  $z = 0.1$ : the precursor to the Arecibo ultra deep survey. *Astrophys. J.* **727**, id. 40, 1–16 (2011).
- Gabler, M., P. Cerda-Duran, et al. (incl. E. Müller): Magneto-elastic oscillations of neutron stars with dipolar magnetic fields. *Mon. Not. R. Astron. Soc.* **410**, L37–L41 (2011).
- Gadotti, D.: Secular evolution and structural properties of stellar bars in galaxies. *Mon. Not. R. Astron. Soc.* **415**, 3308–3318 (2011).
- Gal-Yam, A., M., M. Kasliwal et al. (incl. P. Mazzali): Real-time detection and rapid multiwavelength follow-up observations of a highly subluminous type II-P supernova from the Palomar transient factory survey. *Astrophys. J.* **736**, id. 159, 1–7 (2011).
- Gao, L., C.S. Frenk, et al. (incl. S.D.M. White): The statistics of the subhalo abundance of dark matter haloes. *Mon. Not. R. Astron. Soc.* **410**, 2309–2314 (2011).
- Genzel, R., S. Newman, et al. (incl. T. Naab): The Sins Survey of  $z \sim 2$  Galaxy Kinematics: Properties of the Giant Star-forming Clumps. *Astrophys. J.* **733**, id. 101, 1–30 (2011).
- Gonzalez-Perez, V., F.J. Castander und G. Kauffmann: Colour gradients within SDSS DR7 galaxies: hints of recent evolution. *Mon. Not. R. Astron. Soc.* **411**, 1151–1166 (2011).
- Goriely, S., N. Chamel, H.-Th. Janka und J.M. Pearson: The decompression of the outer neutron star crust and r-process nucleosynthesis. *Astron. and Astrophys.* **531**, id. A78, 1–9 (2011).
- Goriely, St., A. Bauswein und H.-Th. Janka: R-Process Nucleosynthesis in Dynamically Ejected Matter of Neutron Star Mergers. *Astrophys. J. Lett.* **738**, L32, 1–6 (2011).
- Greif, T., V. Springel, S. White et al.: Simulations on a Moving Mesh: The Clustered Formation of Population III Protostars. *Astrophys. J.* **737**, id. 75, 1–17 (2011).
- Greif, T., S. White, R. Klessen und V. Springel: The Delay of Population III Star Formation by Supersonic Streaming Velocities. *Astrophys. J.* **736**, id. 147, 1–5 (2011).
- Grevesse, N., M. Asplund, A. Sauval und P. Scott: The chemical composition of the sun. *Can. J. Phys.* **89**, 327–331 (2011).
- Gunár, S., P. Heinzel und U. Anzer: Synthetic differential emission measure curves of prominence fine structures. *Astron. Astrophys.* **528**, A47, 1–6 (2011).
- Gunár, S., S. Parenti, U. Anzer et al.: Synthetic differential emission measure curves of prominence fine structure. *Astron. Astrophys.* **535**, A122, 1–11 (2011).
- Guo, Qi, S. White, M. Boylan-Kolchin et al.: From dwarf spheroidals to cD galaxies: simulating the galaxy population in a  $\Lambda$ CDM cosmology. *Mon. Not. R. Astron. Soc.* **413**, 101–131 (2011).

- Gvaramadze, V.V. und A. Gualandris: Very massive runaway stars from three-body encounters *Mon. Not. R. Astron. Soc.* **410**, 304–312 (2011).
- Györy, Z., A. Szalay et al. (incl. S. Charlot): Correlations between nebular emission and the continuum spectral shape in SDSS galaxies. *Astron. J.* **141**, 133, 1–14 (2011).
- Hajian, A., V. Acquaviva, et al. (incl. C. Hernandez-Monteagudo): The Atacama Cosmology Telescope: calibration with the Wilkinson Microwave Anisotropy Probe using cross-correlations. *Astrophys. J.* **740**, 86, 1–9 (2011).
- Hambrick, D.C., J. Ostriker, P. Johansson und Th. Naab: The effects of X-ray and UV background radiation on the low-mass slope of the galaxy mass function. *Mon. Not. R. Astron. Soc.* **413**, 2421–2428 (2011).
- Hambrick, D., J. Ostriker, T. Naab und P. Johansson: The Effects of X-Ray Feedback from Active Galactic Nuclei on Host Galaxy Evolution. *Astrophys. J.* **738**, id. 16, 1–9 (2011).
- Hartlap, J., S. Hilbert, P. Schneider und H. Hildebrandt: A bias in cosmic shear from galaxy selection: results from ray-tracing simulations. *Astron. Astrophys.* **528**, A51, 1–9 (2011).
- Hatch, N.A., C. De Breuck et al. (incl. R. Overzier): Galaxy protocluster candidates around  $z \sim 2.4$  radio galaxies. *Mon. Not. R. Astron. Soc.* **410**, 1537–1549 (2011).
- Hayek, W., M. Asplund, R. Collet, und A. Nordlund: 3D LTE spectral line formation with scattering in red giant stars *Astron. Astrophys.* **529**, A158, 1–18 (2011).
- Heckman, T. und G. Kauffmann: The Coevolution of Galaxies and Supermassive Black Holes: A Local Perspective. *Science*, **333**, 182–185 (2011).
- Heckman, T., S. Borthakur, R. Overzier, G. Kauffmann et al.: Extreme Feedback and the Epoch of Reionization: Clues in the Local Universe. *Astrophys. J.* **730**, 1–12 (2011).
- Heitsch, F., T. Naab und S. Walch: Flow-driven cloud formation and fragmentation: results from Eulerian and Lagrangian simulations. *Mon. Not. R. Astron. Soc.* **415**, 271–278 (2011).
- Helmi, A., A. Cooper, S. White et al.: Substructure in the Stellar Halos of the Aquarius Simulations *Astrophys. J. Lett.* **733**, L7, 1–5 (2011).
- Herzog, M. und F.K. Röpke: Three-dimensional hydrodynamic simulations of the combustion of a neutron star into a quark star. *Phys. Rev. D*, **84**, id. 083002, 1–13 (2011).
- Hilbert, S., J. Gair und L. King: Reducing distance errors for standard candles and standard sirens with weak-lensing shear and flexion maps. *Mon. Not. R. Astron. Soc.* **412**, 1023–1037 (2011).
- Hilbert, S., J. Hartlap und P. Schneider: Cosmic shear covariance: the log-normal approximation. *Astron. Astrophys.* **536**, A85, 1–25 (2011).
- Hoekstra, H., J. Hartlap, S. Hilbert und E. van Uitert: Effects of distant large-scale structure on the precision of weak lensing mass measurements. *Mon. Not. R. Astron. Soc.* **412**, 2095–2103 (2011).
- Horesh, A., D. Maoz, S. Hilbert und M. Bartelmann: Lensed arc statistics: comparison of Millennium simulation galaxy clusters to Hubble Space Telescope observations of an X-ray selected sample. *Mon. Not. R. Astron. Soc.* **418**, 54–63 (2011).
- Hütsi, G., J. Chluba, A. Hektor und M. Raidal: WMAP7 and future CMB constraints on annihilating dark matter: implications for GeV-scale WIMPs. *Astron. Astrophys.* **535**, A26, 1–10 (2011).
- Huber, D., T.R. Bedding et al. (incl. V. Silva): Testing scaling relations for solar-like oscillations from the main sequence to red giants using Kepler data. *Astrophys. J.* **743**, id. 143, 1–10 (2011).

- Iannuzzi, F. und K. Dolag: Adaptive gravitational softening in GADGET. *Mon. Not. R. Astron. Soc.* **417**, 2846–2859 (2011).
- Ishida, E., R. de Souza und A. Ferrara: Probing cosmic star formation up to  $z = 9.4$  with gamma-ray bursts. *Mon. Not. R. Astron. Soc.* **418**, 500–504 (2011).
- Jaffe, T.R., A. Banday, J. Leahy et al: Connecting synchrotron, cosmic rays and magnetic fields in the plane of the galaxy. *Mon. Not. R. Astron. Soc.* **416**, 1152–1162 (2011).
- Jeeson-Daniel, A., C. Dalla Vecchia, M. Haas und J. Schaye: The correlation structure of dark matter halo properties. *Mon. Not. R. Astron. Soc. Lett.* **415**, L69–L73 (2011).
- Jia, J., A. Ptak et al. (incl. R. Overzier): Evidence for black hole growth in local analogs to Lyman break galaxies. *Astrophys. J.* **731**, id. 55, 1–12 (2011).
- Jönsson, H., N. Ryde et al. (incl. M. Asplund, R. Collet): Sulphur abundances in halo giants from the [S I] line at 1082 nm and the [S I] triplet around 1045 nm. *Astron. Astrophys.* **530**, A144, 1–13 (2011).
- Jofre, P. und A. Weiss: The age of the Milky Way halo stars from the sloan digital sky survey. *Astron. Astrophys.* **533**, A59, 1–15 (2011).
- Johnson, J., S. Khochfar, T. Greif und F. Durier: Accretion on to black holes formed by direct collapse. *Mon. Not. R. Astron. Soc. Lett.* **410**, 919–933 (2011).
- Junklewitz, H. und T.A. Enßlin: Imprints of magnetic power and helicity spectra on radio polarimetry statistics. *Astron. Astrophys.* **530**, A88, 1–23 (2011).
- Karl, S., S. Fall und Th. Naab: Disruption of Star Clusters in the Interacting Antennae Galaxies. *Astrophys. J.* **734**, id. 11, 1–7 (2011).
- Khatri, R. und R.A. Sunyaev: Time of primordial  ${}^7\text{Be}$  conversion into  ${}^7\text{Li}$ , energy release and doublet of narrow cosmological neutrino lines. *Astron. Lett.* **37**, 367–373 (2011).
- Khochfar, S., E. Emsellem et al. (incl. T. Naab): The ATLAS3D project – VIII. Modelling the formation and evolution of fast and slow rotator early-type galaxies within Lambda-CDM. *Mon. Not. R. Astron. Soc. Lett.* **417**, 845–862 (2011).
- Kiselman, D., T. Pereira et al. (incl. M. Asplund): Is the solar spectrum latitude-dependent?. An investigation with SST/TRIPPEL. *Astron. Astrophys.* **535**, A14, 1–9 (2011).
- Kiuchi, K., M. Shibata, P. Montero und J.A. Font: Gravitational Waves from the Papaloizou-Pringle Instability in Black-Hole-Torus Systems. *Phys. Rev. Lett.* **106**, id. 251102, 1–4 (2011).
- Knebe, A., et al. (incl. K. Dolag, F. Iannuzzi): Haloes gone MAD: The Halo-Finder Comparison Project. *Mon. Not. R. Astron. Soc.* **415**, 2293–2318 (2011).
- Koch, A., K. Lind und R.M. Rich: Discovery of a super-Li-rich turnoff star in the metal-poor globular cluster NGC 6397. *Astrophys. J. Lett.* **738**, L29, 1–5 (2011).
- Kotarba, H., et al. (incl. K. Dolag, T. Naab): Galactic ménage à trois: simulating magnetic fields in colliding galaxies. *Mon. Not. R. Astron. Soc.* **415**, 3189–3218 (2011).
- Kraemer, W.P. und V. Spirko: Vibrational energies of  $\text{LiH}_2^+$  and  $\text{LiD}_2^+$  in the first excited electronic state. *J. Phys. Chem. A* **115**, 11313–11320 (2011).
- Krajnovic, D., E. Emsellem et al. (incl. Th. Naab): The ATLAS3D project – II. Morphologies, kinematic features and alignment between photometric and kinematic axes of early-type galaxies. *Mon. Not. R. Astron. Soc.* **414**, 2923–2949 (2011).
- Kuchar, P. und T. Enßlin: Magnetic power spectra from Faraday rotation maps - REAL-MAF and its use on Hydra A. *Astron. Astrophys.* **529**, A13, 1–13 (2011).
- Kuiper, E., N.A. Hatch et al. (incl. R. Overzier): A SINFONI view of filaments in the Spiderweb: a galaxy cluster in the making. *Mon. Not. R. Astron. Soc.* **415**, 2245–2256 (2011).

- Kuiper, E., N.A. Hatch et al. (incl. R. Overzier): Discovery of a high- $z$  protocluster with tunable filters: the case of 6C0140+326 at  $z=4.4$ . *Mon. Not. R. Astron. Soc.* **417**, 1088–1097 (2011).
- Lai, D.K., G. Smith et al. (incl. S. Lucatello): Chemical abundances for evolved stars in M5: Lithium through Thorium. *Astron. J.* **141**, id. 62, 1–20 (2011).
- Lee, T.S., K. Nagamine, L. Hernquist und V. Springel: Cross-correlation between damped Lyman-alpha systems and Lyman break galaxies in cosmological SPH simulations. *Mon. Not. R. Astron. Soc.* **411**, 54–64 (2011).
- Lee, Y.S., T.C. Beers, et al. (incl. R. Schönrich): Formation and Evolution of the Disk System of the Milky Way:  $[\alpha/\text{Fe}]$  Ratios and Kinematics of the SEGUE G-Dwarf Sample. *Astrophys. J.* **738**, id. 187, 1–17 (2011).
- Li, Z., C. Jones et al (incl. M. Gilfanov): X-ray emission from the Sombrero galaxy: a galactic-scale outflow. *Astrophys. J.* **730**, id. 84, 1–16 (2011).
- Li, Ch.: The distribution of stellar mass-to-light ration in the local universe. *Int. J. of Mod. Phys.* **20**, 2105–2108 (2011).
- Lind, K., M. Asplund, P.S. Barklem und A.K. Belyaev: Non-LTE calculations for neutral Na in late-type stars using improved atomic data. *Astron. Astrophys.* **528**, A103, 1–9 (2011).
- Lind, K., C. Charbonnel et al. (incl. M. Asplund): Tracing the evolution of NGC 6397 through the chemical composition of its stellar populations. *Astron. Astrophys.* **527**, A148, 1–16 (2011).
- Lira, P., P. Arevalo, P. Uttley et al.: Optical and near-IR long-term monitoring of NGC 3783 and MR 2251–178: evidence for variable near-IR emission from thin accretion discs. *Mon. Not. R. Astron. Soc.* **415**, 1290–1303 (2011).
- Ludlow A, D., J. Navarro, S. White et al.: The density and pseudo-phase-space density profiles of cold dark matter haloes. *Mon. Not. R. Astron. Soc.* **415**, 3895–3902 (2011).
- Maciejewski, M., M. Vogelsberger, S. White und V. Springel: Bound and unbound substructures in Galaxy-scale dark matter haloes. *Mon. Not. R. Astron. Soc.* **415**, 2475–2484 (2011).
- Maeda, K., G. Leloudas, S. Taubenberger et al.: Effects of the explosion asymmetry and viewing angle on the Type Ia supernova colour and luminosity calibration. *Mon. Not. R. Astron. Soc.* **413**, 3075–3094 (2011).
- Mainieri, V., A. Bongiorno et al. (incl. K. Kovac): Black hole accretion and host galaxies of obscured quasars in XMM-COSMOS. *Astron. Astrophys.* **535**, A80, 1–27 (2011).
- Maio, U. und F. Iannuzzi: Baryon history and cosmic star formation in non-Gaussian cosmological models: numerical simulations. *Mon. Not. R. Astron. Soc.* **413**, 3021–3032 (2011).
- Maio, U., S. Khochfar, J.L. Johnson und B. Ciardi: The interplay between chemical and mechanical feedback from the first generation of stars. *Mon. Not. R. Astron. Soc.* **414**, 1145–1157 (2011).
- Marino, A.F., C. Sneden, R.P. Kraft et al.: The two metallicity groups of the globular cluster M 22: a chemical perspective. *Astron. Astrophys.* **532**, A8, 1–24 (2011).
- Marino, A., S. Villanova, et al. (incl. K. Lind): Sodium-oxygen anticorrelation among horizontal branch stars in the globular cluster M4. *Astrophys. J. Lett.* **730**, L16, 1–6 (2011).
- Marino, A., A. Milone, G. Piotto et al: Sodium-Oxygen anticorrelation and neutron-capture elements in Omega Centauri stellar populations. *Astrophys. J. Lett.* **731**, id. 64, 1–12 (2011).

- Marriage, T.A., J.B. Juin et al. (incl. C. Hernandez-Monteagudo): The Atacama Cosmology Telescope: extragalactic sources at 148 GHz in the 2008 survey. *Astrophys. J.* **732**, id. 100, 1–15 (2011).
- Marriage, T.A., V. Acquaviva et al. (incl. C. Hernandez-Monteagudo): The Atacama Cosmology Telescope: Sunyaev-Zel'dovich-selected galaxy clusters at 148 GHz in the 2008 Survey. *Astrophys. J.* **737** id. 61, 1–10 (2011).
- Martin, E.L., H.C. Spruit und R. Tata: A binary merger origin for inflated hot Jupiter planets. *Astron. Astrophys.* **535**, A50, 1–6 (2011).
- Maurer, I., A. Jerkstrand, P. Mazzali et al.: NERO - A Post Maximum Supernova Radiation Transport Code. *Mon. Not. R. Astron. Soc.* **418**, 1517–1525 (2011).
- Mazzali, P., I. Maurer, M. Stritzinger et al.: The nebular spectrum of the type Ia supernova 2003hv: evidence for a non-standard event. *Mon. Not. R. Astron. Soc.* **416**, 881–892 (2011).
- Mennella, A., et al. (incl. T. Enßlin with PLANCK group): Planck early results - III. First assessment of the Low Frequency Instrument in-flight performance. *Astron. Astrophys.* **536**, A3, 1–29 (2011).
- Messineo, M., B. Davies et al. (incl. R.-P. Kudritzki): Massive Stars in the Cl 1813-178 Cluster: An Episode Of Massive Star Formation in the W33 Complex. *Astrophys. J.* **733**, id. 41, 1–15 (2011).
- Meyer-Hofmeister, E. und F. Meyer: Broad iron emission lines in Seyfert galaxies - recondensation of gas onto an inner disk below the ADAF? *Astron. Astrophys.* **527**, A127, 1–9 (2011).
- Mineo, S., M. Gilfanov und R. Sunyaev: The collective X-ray luminosity of HMXB as a SFR indicator. *Astron. Nachrichten*, **332**, 349–353 (2011).
- Mirabel, I. F., M. Dijkstra, P.L. Laurent et al.: Stellar black holes at the dawn of the universe. *Astron. Astrophys.* **528**, A149, 1–6 (2011).
- Mocak, M., C.A. Meakin, E. Müller und L. Siess: A New Stellar Mixing Process Operating below Shell Convection Zones Following Off-center Ignition. *Astrophys. J.* **743**, id. 55, 1–9 (2011).
- Mocak, M., L. Siess und E. Müller: Multidimensional hydrodynamic simulations of the hydrogen injection flash. *Astron. Astrophys.* **533**, A53, 1–8 (2011).
- Montuori, C., M. Dotti, M. Colpi et al.: Search of sub-parsec massive binary black holes through line diagnosis. *Mon. Not. R. Astron. Soc.* **412**, 26–32 (2011).
- Morabito, L. K., X. Dai, et al. (incl. F. Shankar): Suzaku Observations of Three FeLoBAL Quasi-stellar Objects: SDSS J0943+5417, J1352+4239, and J1723+5553. *Astrophys. J.* **737**, id. 46, 1–10 (2011).
- Moriya, T., et al. (incl. S. Blinnikov und E. Sorokina): Supernovae from red supergiants with extensive mass loss. *Mon. Not. R. Astron. Soc.* **415**, 199–213 (2011).
- Moster, B., A. Maccio, et al. (incl. Th. Naab): The effects of a hot gaseous halo in galaxy major mergers. *Mon. Not. R. Astron. Soc.* **415**, 3750–3770 (2011).
- Neil, J., M. Sullivan et al. (incl. R. Overzier): The extreme hosts of extreme supernovae. *Astrophys. J.* **727**, id. 15, 1–7 (2011).
- Neistein, E., S. Weinmann, Ch. Li und M. Boylan-Kolchin: Linking haloes to galaxies: how many halo properties are needed? *Mon. Not. R. Astron. Soc.* **414**, 1405–1417 (2011).
- Neistein, E., Ch. Li, et al. (incl. F. Shankar): A tale of two populations: the stellar mass of central and satellite galaxies. *Mon. Not. R. Astron. Soc.* **416**, 1486–1499 (2011).
- Nieva, M.-F. und S. Simon-Diaz: The chemical composition of the Orion star forming region - III. C, N, Ne, Mg, and Fe abundances in B-type stars revisited. *Astron. Astrophys.*

- 532**, A2, 1–14 (2011).
- Novara, G., N. La Palombara et al. (incl. M. Gilfanov): Highly absorbed X-ray binaries in the Small Magellanic Cloud *Astron. Astrophys.* **532**, A153, 1–8 (2011).
- Nugent, P., M. Sullivan, et al. (incl. P. Mazzali): Supernova SN 2011fe from an exploding carbon-oxygen white dwarf star. *Nature*, **480**, 344–347 (2011).
- Oliveira, I., R. Overzier, K. Pontoppidan et al.: VLT/X-shooter spectroscopy of a dusty planetary nebula discovered with Spitzer/IRS. *Astron. Astrophys.* **526**, A41, 1–4 (2011).
- Oppermann, N., G. Robbers, T. Enßlin: Reconstructing signals from noisy data with unknown signal and noise covariance. *Phys. Rev. E* **84**, 041118, 1–10 (2011).
- Oppermann, N., H. Junklewitz, G. Robbers und T.A. Enßlin: Probing magnetic helicity with synchrotron radiation and Faraday rotation. *Astron. Astrophys.* **530**, A89, 1–10 (2011).
- Osorio, Y., P.S. Barklem, K. Lind und M. Asplund: The influence of electron collisions on non-LTE Li line formation in stellar atmospheres. *Astron. Astrophys.* **529**, A31, 1–7 (2011).
- Pace, F. et al. (incl. K. Dolag und M. Grossi): A numerical study of the effects of primordial non-Gaussianities on weak lensing statistics. *Mon. Not. R. Astron. Soc.* **411**, 595–606 (2011).
- Padilla, N., D. Christlein, E. Gawiser und D. Marchesini: The evolution of early-type galaxies selected by their spatial clustering. *Astron. Astrophys.* **531**, A142, 1–10 (2011).
- Pakmor, S. Hachinger, R., F. Röpke und W. Hillebrandt: Violent mergers of nearly equal-mass white dwarf as progenitors of subluminous Type Ia supernovae. *Astron. Astrophys.* **528**, A117, 1–9 (2011).
- Pancino, E., A. Mucciarelli, L. Sbordone, et al.: The subgiant branch of omega Centauri seen through high-resolution spectroscopy. I. The first stellar generation in omega Cen? *Astron. Astrophys.* **527**, A18, 1–15 (2011).
- Pancino, E., A. Mucciarelli et al. (incl. L. Sbordone): The subgiant branch of omega Centauri seen through high-resolution spectroscopy - II. The most metal-rich population. *Astron. Astrophys.* **534**, A53, 1–10 (2011).
- Partl, A. M., A. Maselli, B. Ciardi et al.: Enabling parallel computing in CRASH. *Mon. Not. R. Astron. Soc.* **414**, 428–444 (2011).
- Pastor, M., S. Hilbert, J. Hartlap und P. Schneider: Probing the dark-matter halos of cluster galaxies with weak lensing. *Astron. Astrophys.* **531**, A169, 1–18 (2011).
- Patat, F., S. Taubenberger, S. Benetti et al.: Asymmetries in the type IIIn SN 2010jl. *Astron. Astrophys.* **527**, L6, 1–4 (2011).
- Patat, F. und S. Taubenberger: Characterisation of the CAFOS linear spectropolarimeter. *Astron. Astrophys.* **529**, A57, 1–5 (2011).
- Peeples, M.S. und F. Shankar: Constraints on star formation driven galaxy winds from the mass–metallicity relation at  $z=0$ . *Mon. Not. R. Astron. Soc.* **417**, 2962–2981 (2011).
- Penterici, L., A. Fontana et al. (incl. M. Dijkstra): Spectroscopic Confirmation of  $z\sim 7$  Lyman Break Galaxies: Probing the Earliest Galaxies and the Epoch of Reionization. *Astrophys. J.* **743**, id. 132, 1–9 (2011).
- Petkova, M. und V. Springel: A novel approach for accurate radiative transfer in cosmological hydrodynamic simulations. *Mon. Not. R. Astron. Soc.* **415**, 3731–3749 (2011).
- Pignata, G., M. Stritzinger et al. (incl. P. Mazzali): SN 2009bb: a peculiar broad-lined type Ic supernova. *Astrophys. J.* **728**, id. 14, 1–19

- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - I. The Planck mission. *Astrophys. Astrophys.* **536**, A1, 1–16 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - II. The thermal performance of Planck. *Astrophys. Astrophys.* **536**, A2, 1–31 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - IV. First assessment of the High Frequency Instrument in-flight performance. *Astrophys. Astrophys.* **536**, A4, 1–20 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - V. The Low Frequency Instrument data processing. *Astrophys. Astrophys.* **536**, A5, 1–19 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - VI. The High Frequency Instrument data processing. *Astrophys. Astrophys.* **536**, A6, 1–47 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - VII. The Early Release Compact Source Catalogue. *Astrophys. Astrophys.* **536**, A7, 1–26 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - VIII. The all-sky early Sunyaev-Zeldovich cluster sample. *Astrophys. Astrophys.* **536**, A8, 1–28 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - IX. XMM-Newton follow-up for validation of Planck cluster candidates. *Astrophys. Astrophys.* **536**, A9, 1–20 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - X. Statistical analysis of Sunyaev-Zeldovich scaling relations for X-ray galaxy clusters. *Astrophys. Astrophys.* **536**, A10, 1–14 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XI. Calibration of the local galaxy cluster Sunyaev-Zeldovich scaling relations. *Astrophys. Astrophys.* **536**, A11, 1–14 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XII. Cluster Sunyaev-Zeldovich optical scaling relations. *Astrophys. Astrophys.* **536**, A12, 1–10 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XIII. Statistical properties of extragalactic radio sources in the Planck Early Release Compact Source Catalogue. *Astrophys. Astrophys.* **536**, A13, 1–10 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XIV. ERCSC validation and extreme radio sources. *Astrophys. Astrophys.* **536**, A14, 1–18 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XV. Spectral energy distributions and radio continuum spectra of northern extragalactic radio sources. *Astrophys. Astrophys.* **536**, A15, 1–56 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XVI. The Planck view of nearby galaxies. *Astrophys. Astrophys.* **536**, A16, 1–16 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XVII. Origin of the submillimetre excess dust emission in the Magellanic Clouds. *Astrophys. Astrophys.* **536**, A17, 1–17 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XVIII. The power spectrum of cosmic infrared background anisotropies. *Astrophys. Astrophys.* **536**, A18, 1–30 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XIX. All-sky temperature and dust optical depth from Planck and IRAS. Constraints on the ‘dark gas’ in our galaxy. *Astrophys. Astrophys.* **536**, A19, 1–16 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XX. New light on anomalous microwave emission from spinning dust grains. *Astrophys. Astrophys.* **536**, A20, 1–17 (2011).

- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XXI. Properties of the interstellar medium in the galactic plane. *Astrophys. J.* **536**, A21, 1–18 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XXII. The submillimetre properties of a sample of galactic cold clumps. *Astrophys. J.* **536**, A22, 1–24 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XXIII. The first all-sky survey of galactic cold clumps. *Astrophys. J.* **536**, A23, 1–33 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XXIV. Dust in the diffuse interstellar medium and the galactic halo. *Astrophys. J.* **536**, A24, 1–30 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XXV. Thermal dust in nearby molecular clouds. *Astrophys. J.* **536**, A25, 1–18 (2011).
- Planck Collaboration (incl. T. Enßlin et al.): Planck early results - XXVI. Detection with Planck and confirmation by XMM-Newton of PLCK G266.6-27.3, an exceptionally X-ray luminous and massive galaxy cluster at  $z \sim 1$ . *Astrophys. J.* **536**, A26, 1–7 (2011).
- Räth, C., A. Banday, G. Rossmanith et al.: Scale-dependent non-Gaussianities in the WMAP data as identified by using surrogates and scaling indices. *Mon. Not. R. Astron. Soc.* **415**, 2205–2214 (2011).
- Randall, S., W. Forman et al. (incl. E. Churazov): Shocks and Cavities from Multiple Outbursts in the Galaxy Group NGC 5813: A Window to Active Galactic Nucleus Feedback. *Astrophys. J.* **726**, id. 86, 1–18 (2011).
- Rasia, E., P. Mazzotta et al. (incl. K. Dolag): Scaling Relation in Two Situations of Extreme Mergers. *Astrophys. J.* **729**, id. 45, 1–10 (2011).
- Reinecke, M.: Libpsht - algorithms for efficient spherical harmonic transforms. *Astron. Astrophys.* **526**, A108, 1–9 (2011).
- Rest, A., R.J. Foley et al. (incl. P. Mazzali): Direct confirmation of the asymmetry of the Cas A supernova with light echoes. *Astrophys. J.* **732**, id. 3, 1–11 (2011).
- Revnivtsev, M., K. Postnov, A. Kuranov und H. Ritter: On the nature of the break in the X-ray luminosity function of low-mass X-ray binaries. *Astron. Astrophys.* **526**, A94, 1–5 (2011).
- Revnivtsev, M. et al. (incl. E. Churazov und R. Sunyaev): Luminosity function of faint Galactic sources in the Chandra bulge field. *Mon. Not. R. Astron. Soc.* **414**, 495–499 (2011).
- Revnivtsev, M., S. Potter et al. (incl. E. Churazov): Observational evidence for matter propagation in accretion flows. *Mon. Not. R. Astron. Soc.* **411**, 1317–1322 (2011).
- Roederer, I., A. Marino und C. Sneden: Characterizing the Heavy Elements in Globular Cluster M22 and an Empirical s-process Abundance Distribution Derived from the Two Stellar Groups. *Astrophys. J.* **742**, id. 37, 1–16 (2011).
- Roedig, C., M. Dotti, A. Sesana et al.: Limiting eccentricity of sub-parsec massive black hole binaries surrounded by self-gravitating gas discs. *Mon. Not. R. Astron. Soc.* **415**, 3033–3041 (2011).
- Röpke, F., I. Seitenzahl, S. Benitez, et al.: Modeling Type Ia supernova explosions. *Progress in Particle and Nuclear Physics*, **66**, 309–318 (2011).
- Röttgering, H., J. Afonso et al. (incl. F. de Gasperin): LOFAR and APERTIF surveys of the radio sky: probing shocks and magnetic fields in galaxy clusters. *J. Astrophys. Astron.* **32**, 557–566 (2011).



- Ross, A., S. Ho et al. (incl. C. Hernandez-Monteagudo): Ameliorating systematic uncertainties in the angular clustering of galaxies: a study using the SDSS-III. *Mon. Not. R. Astron. Soc.* **417**, 1350–1373 (2011).
- Ruchti, G.R., J.P. Fulbright, R. Wyse et al.: Metal-poor Lithium-rich Giants in the Radial Velocity Experiment Survey. *Astrophys. J.* **743**, id. 107, 1–14 (2011).
- Ruchti, G.R., J.P. Fulbright, R. Wyse et al.: Observational Properties of the Metal-poor Thick Disk of the Milky Way and Insights into its Origins. *Astrophys. J.* **737**, id. 9, 1–24 (2011).
- Ruiter, A.J. et al., (incl. W. Hillebrandt, M. Fink und M. Kromer): Delay times and rates for Type Ia supernovae and thermonuclear explosions from double-detonation sub-Chandrasekhar mass models. *Mon. Not. R. Astron. Soc.* **417**, 408–419 (2011).
- Saintonge, A., G. Kauffmann et al. (incl. S. Fabello und B. Catinella): COLD GASS, an IRAM legacy survey of molecular gas in massive galaxies- I. Relations between H<sub>2</sub>, H I, stellar content and structural properties. *Mon. Not. R. Astron. Soc.* **415**, 32–60 (2011).
- Saintonge, A., G. Kauffmann et al. (incl. S. Fabello und B. Catinella): COLD GASS, an IRAM legacy survey of molecular gas in massive galaxies - II. The non-universality of the molecular gas depletion time-scale. *Mon. Not. R. Astron. Soc.* **415**, 61–76 (2011).
- Saintonge, A. und K. Spekkens: Disk galaxy scaling relations in the SFI++: intrinsic scatter and applications. *Astrophys. J.* **77** id. 726, 1–18 (2011).
- Sako, T., J. Paldus, A. Ichimura und G.H.F. Diercksen: Origin of Hund’s multiplicity rule in singly excited helium: Existence of a conjugate Fermi hole in the lower excited state. *Phys. Rev. A.* **83**, 032511, 1–11 (2011).
- Sales, L., J. Navarro, A. Cooper, et al.: Clues to the Magellanic Galaxy from Cosmological Simulations. *Mon. Not. R. Astron. Soc.* **418**, 648–658 (2011).
- Salvato, M., O. Ilbert et al. (incl. K. Kovac): Dissecting photometric redshift for active galactic nucleus using XMM- and Chandra-COSMOS samples. *Astrophys. J.* **742**, id. 61, 1–15 (2011).
- Sawala, T., Q. Guo et al. (incl. S. White): What is the (dark) matter with dwarf galaxies? *Mon. Not. R. Astron. Soc.* **413**, 659–668 (2011).
- Sbordone, L., M. Salaris, A. Weiss und S. Cassisi: Photometric signatures of multiple stellar populations in Galactic globular clusters. *Astron. and Astrophys.* **534**, A9, 1–15 (2011).
- Scannapieco, C., S.D.M. White, V. Springel und P. Tissera: Formation history, structure and dynamics of discs and spheroids in simulated Milky Way mass galaxies. *Mon. Not. R. Astron. Soc.* **417**, 154–171 (2011).
- Schnerr, R.S. und H.C. Spruit: The brightness of magnetic field concentrations in the quiet Sun. *Astron. Astrophys.* **532**, A136, 1–7 (2011).
- Schönrich, R., M. Asplund und L. Casagrande: On the alleged duality of the Galactic halo. *Mon. Not. R. Astron. Soc.* **415**, 3807–3823 (2011).
- Sehgal, N., H. Trac et al. (incl. C. Hernandez-Monteagudo): The Atacama Cosmology Telescope: cosmology from galaxy clusters detected via the Sunyaev-Zel’dovich effect. *Astrophys. J.* **732**, id. 44, 1–12 (2011).
- Seitenzahl, I. R., F. Ciardi-Schoolmann und F. Röpke: Type Ia supernova diversity: white dwarf central density as a secondary parameter in three-dimensional delayed detonation models. *Mon. Not. R. Astron. Soc.* **414**, 2709–2715 (2011).
- Sembolini, E., T. Schrabback et al. (incl. S. Hilbert): Weak lensing from space: first cosmological constraints from three-point shear statistics. *Mon. Not. R. Astron. Soc.* **410**,

- 143–160 (2011).
- Sembolini, E., H. Hoekstra et al. (incl. M. van Daalen): Quantifying the effect of baryon physics on weak lensing tomography. *Mon. Not. R. Astron. Soc.* **417**, 2020–2035 (2011).
- Serenelli, A.M., W. Haxton und C. Pena-Garay: Solar models with accretion - I. Application to the solar abundance problem. *Astrophys. J.* **743**, id. 24, 1–20 (2011).
- Sesana, A., A. Gualandris und M. Dotti: Massive black hole binary eccentricity in rotating stellar systems. *Mon. Not. R. Astron. Soc. Lett.* **415**, L35–L39 (2011).
- Silva Aguirre, V., J. Ballot, A. Serenelli and A. Weiss: Constraining mixing processes in stellar cores using asteroseismology. Impact of semiconvection in low-mass stars. *Astron. Astrophys.* **529**, A63, 1–13 (2011).
- Silva Aguirre, V. et al. (incl. A. Weiss und L. Casagrande): Constructing a one-solar-mass evolutionary sequence using asteroseismic data from Kepler. *Astrophys. J. Lett.* **740**, id. L2, 1–7 (2011).
- Smith, R.J., S. Glover, et al. (incl. T. Greif): The effects of accretion luminosity upon fragmentation in the early universe. *Mon. Not. R. Astron. Soc.* **414**, 3633–3644 (2011).
- Stappers, B.W., J.W. Hessels et al. (incl. B. Ciardi): Observing pulsars and fast transients with LOFAR. *Astron. Astrophys.* **530**, A80, 1–32 (2011).
- Starling, R.L., K. Wiersema, et al. (incl. P. Mazzali): Discovery of the nearby long, soft GRB 100316D with an associated supernova. *Mon. Not. R. Astron. Soc. Lett.* **411**, 2792–2803 (2011).
- Stergioulas, N., A. Bauswein, K. Zagkouris und H.-Th. Janka: Gravitational waves and nonaxisymmetric oscillation modes in mergers of compact object binaries. *Mon. Not. R. Astron. Soc.* **418**, 427–436 (2011).
- Sturm, R., F. Haberl et al. (incl. M. Gilfanov): The XMM-Newton survey of the Small Magellanic Cloud: a new X-ray view of the symbiotic binary SMC 3. *Astron. Astrophys.* **529**, A152, 1–5 (2011).
- Sullivan, M., M. Kaslival et al. (incl. P. Mazzali): The subluminous and peculiar type Ia supernova PTF 09dav. *Astrophys. J.* **732**, id. 118, 1–13 (2011).
- Taburet, N., C. Hernandez-Monteagudo et al. (incl. R. Sunyaev): The ISW-tSZ cross-correlation: integrated Sachs-Wolfe extraction out of pure cosmic microwave background data. *Mon. Not. R. Astron. Soc.* **418**, 2207–2218 (2011).
- Tanaka, M., P. Mazzali et al. (incl. I. Maurer): Abundance stratification in type Ia supernovae - III. The normal SN 2003du. *Mon. Not. R. Astron. Soc.* **410**, 1725–1738 (2011).
- Tasca, L. und S.D.M. White: Quantitative morphology of galaxies from the SDSS. I. Luminosity in bulges and discs. *Astron. Astrophys.* **530**, A106, 1–16 (2011).
- Taubenberger, S. et al. (incl. I. Maurer und P. Mazzali): The He-rich stripped-envelope core-collapse supernova 2008ax. *Mon. Not. R. Astron. Soc.* **413**, 2140–2156 (2011).
- Taubenberger, S. et al. (incl. P. Mazzali und M. Kromer): High luminosity, slow ejecta and persistent carbon lines: SN 2009dc challenges thermonuclear explosion scenarios. *Mon. Not. R. Astron. Soc.* **412**, 2735–2762 (2011).
- Tepper-Garcia, T., P. Richter et al. (incl. R. Wiersma): Absorption signatures of warm-hot gas at low redshift: O VI. *Mon. Not. R. Astron. Soc.* **413**, 190–212 (2011).
- Thoene, C., de Ugarte Postigo et al. (incl. H.-Th. Janka): The unusual gamma-ray burst GRB 101225A from a helium star/neutron star merger at redshift 0.33. *Nature*, **480**, 72–74 (2011).

- Tollerud, E., M. Boylan-Kolchin, E. Barton et al.: Small-scale structure in the sloan digital sky survey and  $\Lambda$ CDM: isolated  $\sim L^*$  galaxies with bright satellites. *Astrophys. J.* **738**, id. 102, 1–14 (2011).
- Travaglio, C., F. Röpke, R. Gallino, und W. Hillebrandt: Type Ia Supernovae as Sites of p-process: Two-Dimensional Models Coupled to Nucleosynthesis. *Astrophys. J.* **739**, id. 93, 1–19 (2011).
- Troisi, F., G. Bono, et al. (incl. A. Weiss): On a new parameter to estimate the Helium content in old stellar systems. *Publ. Astron. Soc. Pac.* **123**, 879–891 (2011).
- Tsalmantza, P., R. Decarli, M. Dotti und D. Hogg: A systematic search for massive black hole binaries in SDSS spectroscopic sample. *Astrophys. J.* **738**, id. 20, 1–9 (2011).
- Turk, M., P. Clark et al. (incl. T. Greif): Effects of Varying the Three-body Molecular Hydrogen Formation Rate in Primordial Star Formation. *Astrophys. J.* **726**, id. 55, 1–11 (2011).
- Utrobin, V. und N. Chugai: Supernova 2000cb: high-energy version of SN 1987A. *Astron. Astrophys.* **532**, A100, 1–6 (2011).
- Valenti, S. et al. (incl. P. Mazzali und S. Taubenberger): SN 2009jf: a slow-evolving stripped-envelope core-collapse supernova. *Mon. Not. R. Astron. Soc.* **416**, 3138–3159 (2011).
- van Daalen, M., J. Schaye, C. Booth und C. Dalla Vecchia: The effects of galaxy formation on the matter power spectrum: a challenge for precision cosmology. *Mon. Not. R. Astron. Soc.* **415**, 3649–3665 (2011).
- Vazza, F., M. Roncarelli, S. Ettori und K. Dolag: The scatter in the radial profiles of X-ray luminous galaxy clusters as diagnostic of the thermodynamical state of the ICM. *Mon. Not. R. Astron. Soc.* **413**, 2305–2313 (2011).
- Vazza, F., K. Dolag, D. Ryu et al.: A Comparison of Cosmological Codes: Properties of Thermal Gas and Shock Waves in Large Scale Structures. *Mon. Not. R. Astron. Soc.* **418**, 960–985 (2011).
- Vera-Ciro, C., L. Sales, et al. (incl. S. White): The Shape of Dark Matter Haloes in the Aquarius Simulations: Evolution and Memory. *Mon. Not. R. Astron. Soc.* **416**, 1377–1391 (2011).
- Vogelsberger, M. und S. White: Streams and caustics: the fine-grained structure of  $\Lambda$  cold dark matter haloes. *Mon. Not. R. Astron. Soc.* **413**, 1419–1438 (2011).
- Vogelsberger, M., R. Mohayaee und S. White: Non-spherical similarity solutions for dark halo formation. *Mon. Not. R. Astron. Soc.* **414**, 3044–3051 (2011).
- Volonteri, M., M. Dotti, D. Campbell und M. Mateo: Massive Black Holes in Stellar Systems: ‘Quiescent’ Accretion and Luminosity. *Astrophys. J.* **730**, id. 145, 1–7 (2011).
- Wadepuhl, M. und V. Springel: Satellite galaxies in hydrodynamical simulations of Milky Way sized galaxies. *Mon. Not. R. Astron. Soc.* **410**, 1975–1992 (2011).
- Waldman, R., D. Sauer et al. (incl. P. Mazzali): Helium Shell Detonations on Low-mass White Dwarfs as a Possible Explanation for SN 2005. *Astrophys. J.* **738**, id. 21, 1–12 (2011).
- Wanajo, S., H.-Th. Janka und B. Müller: Electron-capture supernovae as the origin of elements beyond iron. *Astrophys. J. Lett.* **726**, id. L15, 1–4 (2011).
- Wanajo, S., H.-Th. Janka und S. Kubono: Uncertainties in the  $\nu$ p-process: supernova dynamics versus nuclear physics. *Astrophys. J.* **729**, id. 46, 1–18 (2011).
- Wang, J., G. Kauffmann, R. Overzier, B. Catinella et al.: The GALEX Arecibo SDSS survey – III. Evidence for the inside-out formation of galactic discs. *Mon. Not. R. Astron. Soc.* **412**, 1081–1097 (2011).

- Wang, J., J. Navarro et al. (incl. S. White): Assembly history and structure of galactic cold dark matter haloes. *Mon. Not. R. Astron. Soc.* **413**, 1373–1382 (2011).
- Weinmann, S., E. Neistein und A. Dekel: On the puzzling plateau in the specific star formation rate at  $z=2-7$ . *Mon. Not. R. Astron. Soc.* **417**, 2737–2751 (2011).
- Wiersma, R., J. Schaye, und T. Theuns: The effect of variations in the input physics on the cosmic distribution of metals predicted by simulations. *Mon. Not. R. Astron. Soc.* **415**, 353–371 (2011).
- Wyithe S. und M. Dijkstra: Non-Gravitational Contributions to the Clustering of Ly-alpha Selected Galaxies: Implications for Cosmological Surveys. *Mon. Not. R. Astron. Soc.* **415**, 3929–3950 (2011).
- Yamila, Y., C. Baugh und R. Angulo: Are the superstructures in the two-degree field galaxy redshift survey a problem for hierarchical models? *Mon. Not. R. Astron. Soc.* **413**, 1311–1317 (2011).
- Yoon, D., B. Morsony, et al. (incl. R. Sunyaev): Jet trails and Mach cones: The interaction of microquasars with the ISM. *Astrophys. J.* **742**, id. 25, 1–16 (2011).
- Young, L., M. Bureau et al. (incl. T. Naab): The ATLAS3D project - IV. The molecular gas content of early-type galaxies. *Mon. Not. R. Astron. Soc.* **414**, 940–967 (2011).
- Zavala, J., M. Vogelsberger, T. Slatyer et al.: Cosmic X-ray and gamma-ray background from dark matter annihilation. *Physical Review D*, **83**, id. 123513, 1–19 (2011).
- Zhang, Zh., M. Gilfanov, R. Voss et al.: Luminosity functions of LMXBs in different stellar environments *Astron. Astrophys.* **533**, A33, 1–15 (2011).
- Zhang, Y.Y., H. Andernach, et al. (incl. E. Puchwein): HIFLUGCS: galaxy cluster scaling relations between X-ray luminosity, gas mass, cluster radius, and velocity dispersion. *Astron. Astrophys.* **526**, A105, 1–38 (2011).
- Zhang, Y.Y., T. Lagana, et al. (incl. E. Puchwein): Star-formation efficiency and metal enrichment of the intracluster medium in local massive clusters of galaxies. *Astron. Astrophys.* **535**, A78, 1–11 (2011).
- Zhuravleva, I., E. Churazov, S. Sazonov, et al.: Resonant scattering in galaxy clusters for anisotropic gas motions on various spatial scales. *Astron. Lett.* **37**, 141–153 (2011).

## 6.2 Konferenzbeiträge

- Bergemann, M., K. Lind and R. Collet: NLTE effects on Fe I/II in the atmospheres of FGK stars and application to the abundance analysis of their spectra. In: *Journal of Physics: Conference Series*, **328**, 1-7.
- Bureau, M., T. Davis et al. (incl. T. Naab): Molecular gas and star formation in local early-type galaxies. In: *Tracing the Ancestry of Galaxies (on the land of our ancestors)* Eds. Carignan, C., F. Combes, and K. C. Freeman Cambridge, UK: Cambridge University Press, IAU Symposium **277**. 55–58
- Cappelluti, N., P. Predehl et al. (incl. E. Churazov and R. Sunyaev): eROSITA on SRG: a X-ray all-sky survey mission. In: *Memorie della Societa Astronomica Italiana Supplementi*, **17**, 159-164.
- Cerda-Duran, P., M. Obergaulinger, et al. (incl. E. Müller): Hydromagnetic instabilities and magnetic field amplification in core collapse supernovae. In: *Gravity as a Crossroad in Physics, Granada, Spain* *Journal of Physics: Conference Series*, **314**, 1-4.
- Chiavassa, A., L. Bigot, et al. (incl. R. Collet and Z. Magic): 3-D hydrodynamical model atmospheres: a tool to correct radial velocities and parallaxes for Gaia. In: *Stellar Atmospheres in the Gaia Era, Brussels, Belgium*. *Journal of Physics: Conference Series*, **328**, 1-8.

- Clarke, T., T. Ensslin, A. Finoguenov et al.: The curious case of Abell 2256. In: *Memorie della Societa Astronomica Italiana*. Eds. Ferrari, C., M. Brueggen et al. Vol. **82**, 547–550.
- Collet, R., W. Hayek, and M. Asplund: The effect of scattering on the temperature stratification of 3D model atmospheres of metal-poor red giants. In: *Astrophysical Dynamics: From Stars to Galaxies*. Eds. Brummell, N.H., A. S. Brun, et al. Cambridge, UK : Cambridge University Press, **271**, 373-374.
- Collet, R., Z. Magic, and M. Asplund: The StaggerGrid project: a grid of 3-D model atmospheres for high-precision. spectroscopy. In: *Stellar Atmospheres in the Gaia Era*, Brussels, Belgium. *Journal of Physics: Conference Series*, **328**, 1-8.
- Cordero-Carrión, I., P. Cerdá Durán, and J. Maria Ibáñez: Gravitational waves in Fully Constrained Formulation in a dynamical spacetime with matter content. In: *Proceedings of the Spanish Relativity Meeting, ERE 2010*. *Journal of Physics: Conference Series* **314**, 1–4.
- D’Angelo, C., and H.C. Spruit: Can a ‘propelling’ disc stay trapped near co-rotation? In: *Fast X-ray Timing and Spectroscopy at Extreme Count Rates - HTRS 2011*. Trieste : SISSA PoS (HTRS 2011) **039**, 1–9.
- Dall, T.H. and L. Sbordone: Visualization and spectral synthesis of rotationally distorted stars. GREAT-ESF Workshop: *Stellar Atmospheres in the Gaia Era.*, *Journal of Physics: Conference Series* Vol. **328**, 1–7.
- Dijkstra, M.: Observational signatures of Lyman Alpha emission from early galaxy formation. In: *Cosmic Radiation Fields: Sources in the early Universe - CRF 2010*. *Proceeding of Science*, Trieste, SISSA, 1–6.
- Duc, P.-A., J.C. Cuillandre, et al. (incl. Th. Naab): Investigating the merger origin of early-type galaxies using ultra-deep optical images. In: *Tracing the Ancestry of Galaxies (on the land of our ancestors)* (IAU Symposium 277). Cambridge, UK : Cambridge University Press, *Proceedings of the International Astronomical Union*, 238–241.
- Fabjan, D., S. Borgani, et al. (incl. K. Dolag): AGN feedback effect on intracluster medium properties from galaxy cluster hydrodynamical simulations. In: *AGN Feedback in Galaxy Formation: Proceedings of the Workshop held in Vulcano*. Eds. Antonuccio-Delogu, V. and J. Silk. Cambridge, UK : Cambridge University Press. **15**, 175–182.
- Fink, M., F. Röpke, W. Hillebrandt et al.: Modeling sub-Chandrasekhar type Ia supernovae. In: *5th International Conference of Numerical Modeling of Space Plasma Flows (ASTRONUM 2010)*. Eds. Pogorelov, N., E. Audit and G. Zank. *Astronomical Society of the Pacific Conference Series.*, San Francisco, CA, USA : *Astronomical Society of the Pacific*, Vol. **444**, 15–20.
- Font, J.A. et al. (incl. M. Gabler and E. Müller): Relativistic MHD simulations of stellar core collapse and magnetars. *Journal of Physics: Conference Series*, **283**, 012011 (2011).
- Frommert, M., I. Sidorenko, J. Bauer et al.: Amplitude remapping as a step towards standardizing the analysis of MR-images. In: *Proc. Medical Imaging 2011: Image Processing*, Eds. Dawant, B., and D. Haynor. Bellingham, WA, USA : *Society of Photo-Optical Instrumentation Engineers*. Vol. **7962**, 1–13.
- Gabler, M., P. Cerda-Duran et al. (incl. E. Müller): Magneto-elastic torsional oscillations of magnetars. In: *Recent Developments in Gravity (NEB XIV)*. *J. of Physics: Conference Series*, **283**, 012013 (2011).
- Gadotti, D.A., The evolution of bar pattern speed with time and bulge prominence. Tumbling, twisting and winding galaxies: pattern speeds along the Hubble sequence. *Memorie della Societa Astronomica Italiana Supplementi*. Vol. **18**, 69–74.

- Goncalves, T.S., R. Overzier, A. Basu-Zych and D.C. Martin: Lyman break analogs: constraints on the formation of extreme starbursts at low and high redshift. In: *Tracing the Ancestry of Galaxies (on the land of our ancestors)* (IAU Symposium 277). Proceedings of the International Astronomical Union, Eds. Carignan, C., F. Combes and K. Freeman. Cambridge, UK : Cambridge University Press **6/S277**, 146–149.
- Gritschneider, M., A. Burkert, T. Naabe and S. Walch: Pillars, jets and dynamical features. In: *270th Symposium of the International Astronomical Union. Proc. Computational star formation*, Eds. Alves, J., B. Elmegreen, et al. Cambridge, UK : Cambridge University Press Vol. **270**, 319–322.
- Hillebrandt, W.: The physics and astrophysics of supernova explosions. In: *Zooming in: The Cosmos at High Resolution*, Proc. International Scientific Conference of the AG, Ed. R. von Berlepsch, Weinheim, Germany : Wiley-VCH **Vo. 23**, 61–82
- Klessen, R., S. Glover et al. (incl. T. Greif): Modeling the effects of turbulence in zero- and low-metallicity star formation. *5th International Conference of Numerical Modeling of Space Plasma Flows (ASTRONUM 2010)*. Eds. Pogorelov, N., E. Audit and G. Zank. Astronomical Society of the Pacific Conference Series., San Francisco, CA, USA : Astronomical Society of the Pacific, Vol. **444**, 42–47.
- Kotarba, H., H. Lesch, K. Dolag and T. Naab: The fate of magnetic fields in colliding galaxies. In: *274th Symposium of the International Astronomical Union*, Eds. Bonanno, A., E. de Gouveia and A. Kosovichev, *Advances in Plasma Astrophysics*, Cambridge, UK: Cambridge University Press Vol. **274**, 376–380.
- Krivonos, R., S. Tsygankov and M. Revnivtsev: Galactic hard X-ray background: inner galaxy. In: *The Extreme and Variable High Energy Sky - extremesky2011.*, Proceedings of Science - POS, Chia Laguna (Cagliari), Italy Trieste: SISSA **028**, 1–6.
- Lebzelter, T., A. Seifahrt et al. (incl. M.F. Nieva): CRIRES-POP: a library of observed high-resolution spectra in the near infrared. In: *Why Galaxies Care about AGB Stars II: Shining Examples and Common Inhabitants*. Eds. Kerchbaum, F., T. Lebzelter et al., Astronomical Society of the Pacific Conference Series Vol. **445**, 623–624.
- Lemson, G., T. Budavari and A.S. Szalay: Implementing a General Spatial Indexing Library for Relational Databases of Large Numerical Simulations. In: *Proc. Scientific and Statistical Database Management - 23rd International Conference*. Eds. J. Bayard Cushing, J.C. French and S. Bowers. *Lecture Notes in Computer Science*, Springer Verlag.
- Lutovinov, A., S. Tsygankov, V. Arefiev and M. Revnivtsev: Spectral evolution of the galactic microquasars XTE J1550-564 and GRO J1655-40 during outbursts. *275th Symposium of the International Astronomical Union*, Eds. Romero, G. E., R. A. Sunyaev, and T. M. Belloni, Union. Cambridge, UK: Cambridge University Press Vol. **275**, 321–322.
- Milone, A.P., G. Piotto et al (incl. A. Marino): Multiple stellar populations in the Globular Clusters NGC1851 and NGC6656 (M22). In: *Proceedings: ‘Supplementi delle Memorie della Societa’ Astronomica Italiana*, Vol. **19**, 19–24.
- Montero, P., H.-T. Janka, E. Müller and B. Müller: Influence of thermonuclear effects on the collapse of supermassive stars. *Spanish Relativity Meeting (ERE 2010) on Gravity as a Crossroad in Physics*. *Journal of Physics: Conference Series* Vol. **314**, 1–4.
- Müller, B., L. Hudepohl, A. Marek et al.: The SuperN-Project: an update on core-collapse supernova simulations In: *Proc. 14th Annual Results and Review Workshop on High Performance Computing in Science and Engineering*. Eds. Nagel, W., D. Kröner, and M. Resch. *High Performance Computing in Science and Engineering '10 - Transactions of the High Performance Computing Center, Stuttgart (HLRS) 2010*. Springer Verlag Heidelberg, 69–83.

- Muthsam, H.J., F. Kupka et al. (incl. F. Zaussinger): Simulations of stellar convection, pulsation and semiconvection. In: *Astrophysical Dynamics: From Stars to Galaxies*, Proceedings of the International Astronomical Union - IAU Symposium. Cambridge, UK : Cambridge University Press Vol. **271**, 179–186.
- Nieva, M. F. and N. Przybilla: Fundamental parameters of ‘normal’ B stars in the solar neighborhood. 272th Symposium of the International Astronomical Union. Proc. of Active OB stars: structure, evolution, mass loss, and critical limits. Eds. Neiner, C., G. Wade et al. Cambridge, UK : Cambridge University Press, Vol. **272**, 566–570.
- Nieva, M. F., N. Przybilla, A. Seifahrt et al.: Near-IR spectroscopy of OB stars with VLT/CRIRES The Multi-Wavelength View of Hot, Massive Stars - 39th Liege, Belgium International Astrophysical Colloquium. Proc. Bulletin de la Societe des Sciences de Liege. Vol. **80**, 175–179
- Obergaulinger, M., and M. Garcia-Munoz: Energetic particle acceleration and transport by Alfvén/acoustic waves in tokamak-like Solar flares. In: 274th Symposium of the International Astronomical Union, Eds. Bonanno, A., E. de Gouveia and A. Kosovichev, *Advances in Plasma Astrophysics*, Cambridge, UK: Cambridge University Press Vol. **274**, 162–164.
- Pakmor, R., M. Fink, W. Hillebrandt et al.: Type Ia supernovae. In: 25th Texas Symposium on Relativistic Astrophysics - TEXAS 2010. Proceedings of Science, Heidelberg, Germany, 1–8.
- Predehl, P. et al. (incl. E. Churazov and R. Sunyaev): eROSITA. In: *UV, X-Ray, and Gamma-Ray Space Instrumentation for Astronomy XVII*. Proc. of SPIE, Ed. O. Siegmund and L. Tsakalakos **81450D**, 1–10.
- Przybilla, N. and M. F. Nieva: Mixing of CNO-cycled matter in pulsationally and magnetically active massive stars. 272th Symposium of the International Astronomical Union. Proc. of Active OB stars: structure, evolution, mass loss, and critical limits. Eds. Neiner, C., G. Wade et al. Cambridge, UK : Cambridge University Press, Vol. **272**, 26–31.
- Przybilla, N., M. F. Nieva and K. Butler: Testing common classical LTE and NLTE model atmosphere and line-formation codes for quantitative spectroscopy of early-type stars. GREAT-ESF Workshop: Stellar Atmospheres in the Gaia Era, Brussels, Belgium, *Journal of Physics: Conference Series* Vol. **328**, 1–12.
- Przybilla, N., M. Firnstein, M. F. Nieva et al.: Mixing of CNO-cycled matter in massive stars. In: *The Multi-Wavelength View of Hot, Massive Stars - 39th Liege, Belgium International Astrophysical Colloquium*. Proc. Bulletin de la Societe des Sciences de Liege. Vol. **80**, 279–284
- Ramsay, S., T. Lebzelter et al. (incl. M. F. Nieva): CRIRES-POP: a library of high resolution spectra in the near-infrared. In: *The Multi-Wavelength View of Hot, Massive Stars - 39th Liege, Belgium International Astrophysical Colloquium*. Proc. Bulletin de la Societe des Sciences de Liege. Vol. **80**, 509–513.
- Rembiasz, T., M. Obergaulinger, et al. (incl. E. Müller): High-order methods for the simulation of hydromagnetic instabilities in core-collapse supernovae. In: 274th Symposium of the International Astronomical Union, Eds. Bonanno, A., E. de Gouveia and A. Kosovichev, *Advances in Plasma Astrophysics*, Cambridge, UK: Cambridge University Press Vol. **274**, 479–481.
- Röpke, F., I. Seitenzahl, S. Benitez et al.: Modeling type Ia supernova explosions. In: *International Workshop on Nuclear Physics, 32nd Course.*, Erice, Sicily, Italy. *Progress in Particle and Nuclear Physics* Vol. **66**, 309–318.
- Sazonov, S., E. Churazov, R. Krivonos et al.: Statistical properties of local AGN based on the INTEGRAL/IBIS 7-year all-sky hard X-ray survey. In: 8th INTEGRAL Workshop “The Restless Gamma-ray Universe” Trieste : SISSA, Proceedings of Science **006**, 1–7.

- Schnerr, R.S. and H.C. Spruit: The total solar irradiance and small scale magnetic fields. In: Solar Polarization Workshop 6, Proc. Eds. Kuhn, J.R, D. Harrington, H. Lin et al. ASP Conference Series Vol. **437**, 167–172.
- Schönrich, R.: What Velocities and Eccentricities tell us about Radial Migration. In: Proc. ‘Assembling the Puzzle of the Milky Way’, Le Grand Bornand, Eds. C. Reyle, A. Robin, M. Schultheis, Vol. **19**, 1–7.
- Seitzzahl, I.: Internal conversion electrons and supernova light curves. In: International Workshop on Nuclear Physics, 32nd Course., Erice, Sicily, Italy. Progress in Particle and Nuclear Physics Vol. **66**, 329– 334.
- Spruit, H.C.: Magnetically powered jets. In: 25th Texas Symposium on Relativistic Astrophysics (TEXAS 2010), AIP Conference Proceedings, Melville, NY, USA : American Institute of Physics, Eds. Aharonian, F., W. Hofmann and F. Rieger, Vol. **1381**, 227–246.
- Zhuravleva I.: Gas turbulent motions in galaxy clusters: In. Memorie della Società Astronomica Italiana Supplementi, Vol. **82**, 481–483.

Prof. Dr. Wolfgang Hillebrandt (Geschäftsführender Direktor bis 31.12.2011)