

Garching

Max-Planck-Institut für Astrophysik

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1 Personal und Ausstattung

1.1 Personalstand

Direktoren:

W. Hillebrandt (Geschäftsführung bis 31.12.02), R. Sunyaev (Geschäftsführung ab 1.1.03),
S. D. M. White.

Wissenschaftliches Mitglied:

R.-P. Kudritzki (bis 16.12.)

Auswärtige Wissenschaftliche Mitglieder:

R. Giacconi, R.-P. Kudritzki (ab 17.12.), W. Tscharnuter.

Emeritierte Wissenschaftliche Mitglieder:

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

Wissenschaftliche Mitarbeiter:

U. Anzer (bis 30.1.), A. Banday, M. Bartelmann, G. Börner, St. Charlot, E. Churazov, H. Dimmelmeier, K. Dolag, K. Dullemond, T. Enßlin, M. Gilfanov, S. Heinz, A. Helmi (bis 14.7.), H.-T. Janka, G. Kauffmann, K. Kifonidis, W.P. Kraemer, H.J. Mo, E. Müller, J.C. Niemeyer (bis 30.10.), S. Nayakshin, P. Popowski, M. Rampp, M. Reinecke, M. Revnivtsev, H. Ritter, G. Rudnick, S. Sazonov, F. Siebel (seit 1.12.), V. Springel, H.C. Spruit, C. Travaglio, F. van den Bosch, A. Weiß, S. Zaroubi.

Ausgeschieden:

U. Anzer (seit 1.2.), H. Arp, G. Diercksen, E. Meyer-Hofmeister, J. Schäfer, H.-C. Thomas, R. Wegmann.

Doktoranden:

R. Banerjee (bis 15.11.), K. Basu (IMPRS), S. Bertone (IMPRS, seit 1.10.), J. Braithwaite (TMR), A. Büning, R. Buras (DFG), J. Chluba (IMPRS), D. Croton (IMPRS, seit 15.7.), J. Cuadra (seit 20.8.), G. DeLucia (IMPRS), G. Drenkhahn (bis 31.8.), M. Flaskamp, H.-J. Grimm, H. Hämmerle (bis 30.9.), F. Hansen (bis 30.6.), P. Hultzsich, G. Hütsi (seit 1.8.), L. Iapichino (seit 1.5.), M. Jubelgas (seit 1.9.), T. Leismann, G. Liang (IMPRS) S. Marri,

H. Mathis (TMR, bis 30.9.), B. Menard, P. Mimica (IMPRS), A. Nickel, C. Pfrommer (seit 1.9.), F. Röpke, D. Sauer (DFG), B. M. Schäfer, L. Scheck, M. Schirmer, W. Schmidt (DFG), F. Siebel (bis 30.11.), M. Stehle, F. Stoehr, M. Stritzinger (IMPRS seit 3.9.), L. Tasca (IMPRS), C. Vogt (IMPRS), S. Zibetti (IMPRS).

Diplomanden:

A. Arcones (seit 5.11.), T. Behrens (bis 31.12.), C. Haydn (bis 30.6.), V. Heesen (seit 15.5.), M. Jubelgas (bis 30.7.), F. Kitaura (seit 15.11.), A. Marek (seit 15.11.), C. Pfrommer (bis 30.8.), O. Zahn (seit 10.4.).

Sofja Kovalevskaja Programm

J. Brinchmann, S. Charlot (Preisträger), C. Möller.

Stipendiaten:

Alexander von Humboldt Stipendiaten:

Xu Kong (USTC, China), N. Sugiyama (Tokyo, Japan, 10.7.–30.9.).

EU-Stipendiaten:

A-M. Aloy Torás, J. Braithwaite, S. Bianchi (bis 22.3.), B. Ciardi, S. Cora, D. Giannios (seit 15.8.), S. Inoue (seit 1.8.), L. King (bis 1.3.), Ch. Kobayashi (seit 15.5.), J.A. Rubiño-Martín (seit 1.11.), A. Wozna (seit 1.10.).

1.2 Personelle Veränderungen

H.-Th. Janka: Habilitation im Fachgebiet Theoretische Physik an der Technischen Universität München.

G. Kauffmann: Heinz Maier-Leibnitz-Preis.

M. Reinecke: Otto-Hahn Medaille der Max-Planck-Gesellschaft (2002).

R. Sunyaev: Alexander Friedmann Preis in Gravitation and Cosmology from the Russian Academy of Sciences.

2 Gäste

I. Baraffe (Lyon, France) 1.10.–30.11.; J. Bica (Prag) 17.1.–17.3.; S. Blinnikov (ITEP, Moscow) 1.8.–30.9.; G. Bruzual (Mérida, Venezuela) 1.8.–30.9.; I. Cenusak (Bratislava, Slovak Republic) 24.6.–20.7.; D. Chen (Shanghai, China) since 4.12.; G. Chabrier (Lyon, France) 1.11.–30.11.; R.A.C. Croft (Carnegie Mellon Univ., Pittsburgh, USA) 1.6.–30.6.; R. Dutt (Santiniketan, India) 3.5.–26.5.; J.A. Font (Valencia, Spanien) 4.5.–15.3.; W. Forman (Cambridge, USA) 24.6.–31.7.; L. Girardi (Trieste, Italy) 1.11.–30.11.; S.A. Grebenev (Moskau, Rußland) 15.7.–25.8.; C. Halliday (Padova, Italy) 1.1.–30.4.; P. Heinzl (Ondřejov, Czech Rep.) 1.–31.5. and 1.–30.11.; N.A. Inogamov (Moskau, Rußland) 3.6.–2.9.; S. Inoue (Tokyo, Japan) since 1.8.; Y. Jing (Shanghai Obs.) 20.2.–3.3.; C. Jones (Cambridge, USA) 20.7.–19.8.; X. Kang (Shanghai, China) bis 30.10.; M. Karelson (Tartu, Estland) 10.12.–21.12.; M. Kieninger (Montevideo, Uruguay) 1.1.–31.1.; U. Kolb (Milton Keynes, United Kingdom) 27.11.–31.12.; S. A. Koryagin (Nizhny Novgorod, Russia) 30.3.–29.4.; I. Kryukov (Moscow, Russia) 1.3.–30.4.; A. Kunder (Willamette, USA) 22.07.–20.11.; Y. Lu (Beijing, China) 20.10.–19.12. P.-A. Malmqvist (Lund, Sweden) 6.11.–6.12.; L. Mashonkina (Kazan, Russia) bis 28.2.; P. Marigo (Padua, Italy) 1.11.–30.11.; P. Mazzali (Trieste, Italy) 19.6.–14.8.; M. Meneghetti (Padova, Italy) 15.4.–31.7.; S. Molkov (Moskau, Rußland) 5.7.–5.8.; F. Mrugała (Torun, Poland) 1.9.–30.9.; D. Nadyozhin (ITEP, Moscow, Russia) 25.6.–25.8.; R. Narayan (CfA Harvard, USA) 16.6.–15.7.; P. Neogrady (Bratislava, Slovakia) 6.11.–30.11.; N. Padmanabhan (Princeton, USA) 1.7.–14.7.; N. Pogorelov (Moscow, Russia) 1.3.–30.4.; P. Ruiz-Lapuente (Barcelona, Spain) 9.1.–28.2. and 1.8.–31.8.; A. Rubino-Martín (Inst. Astr. de Canarias) 1.8.–30.9. T. Sako (Tokyo, Japan) 1.1.–31.12.;

M. Salaris (Liverpool, UK) 17.6.–30.7.; H. Schlattl (Liverpool, UK) 25.6.–12.7.; N.I. Shakura (Moskau, Rußland) 4.9.–4.10.; Z. Shao (Shanghai, China) seit 23.10.; S. Shen (Shanghai, China) 1.1.–31.12.; C. Shu (Shanghai, China) seit 05.08.; N.R. Sibgatouline (Moskau, Rußland) 18.1.–22.2.; S. Sild (Tartu, Estland) 5.12.–21.12.; M. Sindelka (Prague, Czech Rep.) 21.5.–31.7.; P. Soldan (Durham, England) 3.6.–3.7.; E. Sorokina (Sternberg Inst. Moscow) 1.8.–29.8.; V. Spirko (Prague, Czech Rep.) 17.6.–31.7.; K. Subramanian (IUCAA, India) 2.4.–21.5.; P. Tissera (Buenos Aires, Argentina) 31.5.–13.6.; M. Urban (Bratislava, Slovak Republic) 24.6.–20.7.; V. Utrobin (ITEP, Moscow, Russia) 3.1.–28.2.; O. Ventura (Montevideo, Uruguay) 1.1.–31.1. and 12.7.–8.8.; S. Woosley (UC, Santa Cruz, USA) 28.7.–28.9.; H. Wu (Beijing, China) seit 04.10.; K. Yamamoto (Hiroshima, Japan) bis 30.8.; X. Yang (Hefei, China) bis 30.06.; D. Zhao (Shanghai Obs.) bis 8.3.; V.V. Zheleznyakov (Nizhny Novgorod, Rußland) 30.3.–30.4.

3 Lehrtätigkeit, Prüfungen und Gremientätigkeit

3.1 Lehrtätigkeiten

G. Börner, WS01/02 und WS02/03, LMU München
 W. Hillebrandt: WS 2001/2, WS 2002/3, TU München
 H.-Th. Janka, WS01/02 und SS02, TU München
 E. Müller, SS02, TU München
 H. Ritter, WS 01/02 und WS 02/03, LMU München
 A. Weiss, WS02/03, Universität Augsburg

3.2 Gremientätigkeit

T. Banday:
 Mitglied von IDIS Arbeitsgruppe für das ESA-Planck Satellit Projekt,
 Planck coordinator for the Technical Working Group (WT 1.7) on „Methods for detection of systematics“,
 Planck coordinator for the Technical Working Group (WT 4.1) on „Effect of systematics on Non-Gaussianity“,
 Planck sub-group coordinator (WT 5.5.4) on the „Integrated Sachs-Wolfe Effect“,
 Planck coordinator for the Technical Working Group (WT 7.4) on „Simulation and analysis tools for polarised galactic emission“,
 Co-organiser of the EU TMR Network CMBNet working group on „Large data set analyses“,
 Mitglied von OPTICON Arbeitsgruppe „Interoperability“,
 Mitglied von der wissenschaftlichen Arbeitsgruppe für „Astrophysical Virtual Observatory“ (AVO).
 M. Bartelmann:
 Mitglied des „Planck-IDIS Development Team“,
 „Planck Level-5 and Level-4 Data Processing Manager“,
 Mitglied im Organisationskomitee für GAFOS (German-American Frontiers of Science Symposium) 2002 und 2003,
 Co-Organisator der wissenschaftlichen Arbeitsgruppe 5 des Planck-Projekts („Clusters and Large-Scale Structure“).
 S. Charlot:
 Mitglied der „ST-ECF Users committee“,
 Mitglied der „VLT/VIRMOS science team“.
 G. H. F. Dierksen:
 Vorsitzender, COST Action 282 „Knowledge Exploration in Science and Technology“.

N. E. Grüner:

Sprecher „YAPC::Europe“ Committee.

W. Hillebrandt:

Koordinator, Research Training Network „The Physics of Type Ia Supernovae“,

Fachbeirat, MPI für Gravitationsphysik, Golm,

Mitglied, Beirat des Rechenzentrums Garching,

Stellvertretender Sprecher des Sonderforschungsbereich 375 „Astro-Teilchen Physik“ (TU),

Herausgeber, Lecture Notes in Physics,

Herausgeber, Encyclopedia of Astronomy and Astrophysics,

Mitglied, NUPECC-Arbeitsgruppe „Nuclear Physics in the Universe“.

E. Müller:

Mitglied des MPA Executive Committee (EC),

Vertreter des MPA-Benutzerausschusses des Rechenzentrums Garching (RZG),

Mitglied des wissenschaftlichen Komitee CINECA MINOS project in Bolgna, Italy,

Mitglied des SOC der Int. Konferenz „Structured adaptive mesh refinement“, ASCI/Alliances Center for Astrophysical Thermonuclear Flashes, Chicago, USA.

H.C. Spruit:

Mitglied Editorial Board, Solar Physics,

EARA Board,

Coordinator, Netzwerk „accretion onto black holes, compact objects and protostars“,

associated scientist, balloon-borne solar telescope project „Sunrise“ (P.I. S. Solanki, MPAe),

co-investigator, ISIS proposal for a solar photometer for SDO (P.I. B. LaBonte, Johns Hopkins).

R. Sunyaev:

Member of the Space Council of Russian Academy of Sciences,

member of the Scientific Council of Russian Space Research Institute (IKI),

member of INTEGRAL Science Working Team and Russian Project Scientist for INTEGRAL (ESA project),

Co-Chairman of the SPECTRUM-X space project International Scientific Committee,

Co-I of the HFI instrument of ESA PLANCK SURVEYOR project,

leads German participation in TMR Network „CMBNET“,

member of NOVA International Advisory Board,

member of Evaluation Committee for SISSA.

F. van den Bosch:

Task-leader for working-group „Feedback and Galactic Winds“ for the European RTN Network on the Physics of the InterGalactic Medium.

A. Weiss:

Mitarbeitervertreter in der CPT-Sektion der MPG Mitglied im „Eddington Science Team“ der ESA.

S. White:

Mitglied des Perspektivenkommission des CPT Sektions der MPG,

Chairman of the Board, European Association for Research in Astronomy,

Mitglied des Kuratoriums, Physik Journal,

Member of the Visiting Committee, Observatory of Lyon,

Membre du Haut Comite Scientifique, Observatoire de Paris,

Mitglied einer C3 Berufungskommission, Universität Basel,

Member of the Visiting Committee, MPA Partner Group at the Shanghai Observatory,

Mitglied des Fachbeirats, MPI für Astronomie, Heidelberg,

Member of the Advisory Council, Sloan Digital Sky Survey,

Panel Member, ESO Observational Programme Committee.

4 Wissenschaftliche Arbeiten

Für Informationen zu den wissenschaftlichen Arbeiten unseres Instituts besuchen Sie bitte unsere Webseite unter www.mpa-garching.mpg.de und klicken Sie „Publications“ „Annual Report 2002“ an. Sollten Sie kein Internet haben, können Sie gerne kostenlos einen Jahresbericht unter der Telefon-Nummer 089/30000-2214 anfordern. In unserem Jahresbericht 2002 sind folgende wissenschaftlichen Aktivitäten in englischer Sprache ausführlich beschrieben:

- 4.1 Stellare Physik
- 4.2 Nukleare und Neutrino-Astrophysik
- 4.3 Numerische Hydrodynamik
- 4.4 Hochenergie Astrophysik
- 4.5 Akkretion
- 4.6 Wechselwirkung von Strahlung mit Materie
- 4.7 Galaxienentwicklung und intergalaktisches Medium
- 4.8 Großräumige Strukturen von $z = 0$ bis zum Urknall
- 4.9 Gravitationslinseneffekt
- 4.10 Untersuchungen des kosmischen Mikrowellenhintergrunds
- 4.11 Quantenmechanik von Atomen und Molekülen, Astrochemie

5 Diplomarbeiten, Dissertationen, Habilitationen

5.1 Diplomarbeiten

Abgeschlossen:

- T. Behrens: „Lichtkurven-Systematik von Typ Ia Supernovae im Falle gemischter Explosionsklassen“ Technische Universität München.
- C. Haydn: „Studying the Spectral Evolution of Stellar Populations using Artificial Neural Networks“, Universität Regensburg.
- M. Jubelgas: „Untersuchung der Dynamik der Sternentstehung in numerischer Simulation kollidierender Spiralgalaxien“.
- C. Pfrommer: „Cosmological Weak Lensing of the Cosmic Microwave Background photons by large scale structure“, Friedrich-Schiller-Universität Jena.

5.2 Dissertationen

Abgeschlossen:

- R. Casas-Miranda: „Statistics of the Dark Matter Halo Distribution in Cosmic Density Fields“, Ludwig-Maximilians-Universität, München.
- G. Drenkhahn: „Magnetically powered Gamma-ray Bursts“, Universität Amsterdam.
- H. Hämmerle: „Cosmic shear measurements on small angular scales: The HST/STiS parallel survey“ Universität Bonn.
- F. Hansen: „Data analysis of the cosmic microwave background“, Ludwig-Maximilians-Universität, München.
- H. Mathis: „Simulations numeriques de modeles gaussiens et non-gaussiens de formation des galaxies“ University of Toulouse III.

- F. Siebel: „Simulation of axisymmetric flows in the characteristic formulation of general relativity“, Technische Universität, München.
- D. Zhao: „The Growth and Structure of Dark Matter Halos“, Shanghai, China.
- Laufend:*
- R. Banerjee: „Reheating after inflation“, Technische Universität München.
- K. Basu: „Formation and Growth of Supermassive Black Holes“, Ludwig-Maximilians-Universität; München.
- S. Bertone: „Chemical Enrichment of the Intergalactic Medium by Galactic Winds“.
- J. Braithwaite: „Evolution of strong magnetic fields in stars“, Universität Amsterdam.
- A. Büning: „Langzeitentwicklung von kompakten Doppelsternen mit Bestrahlungsrückkopplung, Ludwig-Maximilians-Universität; München.
- R. Buras: „Zweidimensionale Simulationen von Typ II Supernovae mit Boltzmanntransport“, Ludwig-Maximilians-Universität; München.
- J. Cuadra: „Two-phase accretion in AGN and our Galactic Center region“
- J. Chluba: „Energy release in the early universe and distortions of the CMB energy spectrum“ Ludwig-Maximilians-Universität; München.
- C. Cramphorn: „Physical processes in galactic and extragalactic superluminal radio sources“, Ludwig-Maximilians-Universität; München.
- D. Croton: „The Star Formation History of the Local Group“, Ludwig-Maximilians-Universität; München.
- G. De Lucia: „Evolution of galaxies in clusters“, Ludwig-Maximilians-Universität; München.
- M. Flaskamp: „Zeitabhaengige nichtlokale Konvektion in Sternen“, Technische Universität München.
- H.-J. Grimm: „Accretion to the first stellar mass and super massive black holes galaxies and their observational properties“, Ludwig-Maximilians-Universität; München.
- P. Hultsch: „Spektraldiagnostik von Supernovae Ia in den späten Phasen“, Ludwig-Maximilians-Universität; München.
- G. Hütsi: „Superclustering and Secondary CMB Anisotropies“, Ludwig-Maximilians-Universität; München.
- T. Leismann: „Numerical Simulations of Parsec Scale Jets and Jet Formation“ Technische Universität München.
- G. Liang: „Simulation of Lyman alpha forest“, Ludwig-Maximilians-Universität; München.
- M. Lisewski: „Analysis and Numerical Studies of Turbulent Thermonuclear Flames in Type Ia Supernovae“, Technische Universität München.
- B. Menard: „Investigations of Weak Gravitational Lensing by Large-Scale Structure“, Ludwig-Maximilians-Universität; München.
- P. Mimica: „Modellierung von nicht-thermischen Strahlungsprozessen in speziell-relativistischen Strömungen“ Ludwig-Maximilians-Universität; München.
- C. Morales-Merino: „Noise properties of cluster mass reconstruction“, Ludwig-Maximilians-Universität; München.
- A. Nickel: „Statistischer Linienstrahlungstransport in den Winden massereicher Sterne“, Ludwig-Maximilians-Universität; München.
- C. Pfrommer: „Development of semi-analytic models for cluster of galaxies“, Ludwig-Maximilians-Universität; München.

- N. Przybilla: „Quantitative Spectroscopy of Supergiants“, Ludwig-Maximilians-Universität; München.
- F. Röpke: „Modellierung turbulenter thermonuklearer Flammen in Typ Ia Supernovae“, Technische Universität München.
- D. Sauer: „NTLE models and synthetic spectra of Type Ia Supernovae at maximum light“, Technische Universität München.
- B. M. Schäfer: „Detection of galaxy clusters by gravitational lensing, X-ray emission and the SZ-effect“.
- L. Scheek: „Numerische Simulationen von Typ II-Supernovae“, Technische Universität München.
- W. Schmidt: „Turbulente thermonukleare Verbrennung in Sternen“, Technische Universität München.
- M. Stehle: „Analyse der Lichtkurven und Spektren von Typ Ia Supernovae“, Ludwig-Maximilians-Universität; München.
- F. Stöhr: „Galaxy formation and Large Scale Structure“, Ludwig-Maximilians-Universität; München.
- M. Stritzinger: „Calibrations of Type Ia Supernovae Lightcurves“, Ludwig-Maximilians-Universität; München.
- L. Tasca: „Structural properties of galaxies“, Ludwig-Maximilians-Universität; München.
- C. Vogt: „Untersuchungen von Faradayrotationskarten ausgedehnter Radioquellen zur Magnetfeldbestimmung in Galaxienhaufen“, Ludwig-Maximilians-Universität; München.
- S. Zibetti: „Low surface brightness features of galaxies and diffuse intracluster light detection in the SDSS“, Ludwig-Maximilians-Universität; München.

6 Tagungen, Projekte am Institut und Beobachtungszeiten

6.1 Tagungen und Veranstaltungen

- G. Börner: Sino-German Workshop on „Galaxy Formation and Evolution“ Beijing, China (18.9.–21.9.).
- G. Börner: Ringberg workshop on „Alternative Dark Matter“ Schloß Ringberg, Tegernsee, Germany (8.4.–12.4.).
- J. Chluba: CMBNet Meeting and Midterm Review on „CMB and Cosmology: Where are we now?“ Ringberg (Tegernsee), Germany (2.12.–6.12.).
- N. E. Grüner: „Deutscher Perl Workshop 4.0“ Sankt Augustin, Germany (13.2.–15.2.)
- N. E. Grüner: „YAPC::Europe 2002: The Science of Perl“ Munich, Germany (18.9.–20.9.)
- C. Hernández-Monteagudo: CMBNet Scientific Meeting & Midterm Review „CMB & Cosmology: Where Are We?“, Ringberg Castle, Germany (02.12.–06.12.)
- W. Hillebrandt, E. Müller: 11th Workshop on „Nuclear Astrophysics“, Ringberg Castle, Lake Tegernsee, (February 11.–16.2002)
- W. Hillebrandt, H.-Th. Janka, E. Müller and B. Leibundgut: „From Twilight to Highlight: The Physics of Supernovae“, ESO/MPA/MPE Workshop, Garching (July 29.–31.2002)
- S.Yu. Sazonov: CMBNet Ringberg Meeting and Mid-Term Review, Ringberg Castle, Germany (2.12.–6.12)
- R. Sunyaev: CMBNet Ringberg Meeting and Mid-Term Review, Ringberg Castle, Germany (2.12.–6.12)

- S. White: Cozumel workshop „Galaxy Evolution: Theory and Observations“ (Mexico, 8.4.–13.4.)
- S. White: Cambridge Summer Conference „MJR60: Making Light of Gravity“ (U.K. 7.7.–12.7.)
- S. White: RTN Network Meeting „The Intergalactic Medium“ Italy, (14.9.–18.9.)
- S. White: Maryland October Astrophysics Conference „The Emergence of Cosmic Structure“ USA, (7.10.–9.10.)

6.2 Kooperationen

Das Institut ist an dem an der Technischen Universität München gegründeten Sonderforschungsbereich 375 über „Astro-Teilchenphysik“ beteiligt.

Das Institut ist einer der fünf Partner innerhalb der „European Association for Research in Astronomy“. Die weiteren Mitglieder sind das Institut d’Astrophysique de Paris, das Institute of Astronomy, Cambridge, England, die Sterrewacht Leiden und das Instituto Astrofísica de Canarias.

6.3 Beobachtungszeiten

- C. Abia (Granada), Claudia Travaglio (MPA), Jordi Isern (IEEC), Sofia Randich (Florence): 18.5.–19.5., Telescopio Galileo (3.6 m), Observatorio del Roque de Los Muchachos (La Palma), Galactic AGB stars with strong mass-loss: clue for Li enrichment;
- H.C. Arp(MPA), E.M. Burbidge (UCSD): 18.2.–20.2., Lick Observatory 3.0 meter telescope, Mt. Hamilton, California, Measuring redshifts of quasar candidates around active galaxies;
- A. Cimatti (Arcetri), T. Broadhurst (HUU), B. Ciardi (MPA), E. Daddi (ESO), S. di Serego Alighieri (Arcetri), A. Ferrara (SISSA), J. Vernet (Arcetri): ESO, Paranal, Chile, VLT, FORS2, 21h in service mode Crossing the $z=6$ Barrier: Searching for Ly α Emitters and PopIII Objects at $6.4 < z < 6.6$;
- E. Daddi (ESO), B. Ciardi (MPA), A. Cimatti (Arcetri), S. di Serego Alighieri (Arcetri), A. Ferrara (SISSA), A. Renzini (ESO), T. Broadhurst (HUU), N. Benitez (JHU): ESO, Paranal, Chile, VLT, ISAAC+FOR2, 37h in service mode Probing the Reionization Epoch: a Search for Primordial Galaxies at $6.5 < z < 7.5$;
- R. Canal (U. Barcelona), et al. (The European Supernova Collaboration): Tenerife, TCS, 7 nights, ToO, Monitoring of nearby type Ia supernovae;
- T.E. Clarke (NRAO-Socorro), T.A. Enßlin (MPA), N. Kassim (NRL), D. Neumann (Saclay): 29.4., Very Large Array, Socorro, New Mexico, USA, AC 583, Low frequency observation of diffuse emission in Abell 2256;
- T.A. Enßlin (MPA), T. Erben (Uni. Bonn), P. Schneider (Uni. Bonn): 8.2002, ESO/MPI, La Silla, Chile, 2.2m Telescope, 69.A-9010A, Weak lensing observation of the peculiar galaxy filament ZwCl 2341.1+0000;
- M. Gilfanov, A. Pozanenko (IKI, Moscow): 16.5.–17.5., 10.6.–14.6., 5.7.–7.7., 30.12.–31.12., Rossi X-ray Timing Explorer, Coordinated optical/X-ray observations of LMXBs with sub-millisecond resolution;
- W. Hillebrandt (MPA), et al. (The European Supernova Collaboration): Calar Alto, Spain, 2.2m and 3.5m, 10 nights each, ToO, Monitoring of nearby type Ia supernovae;
- X. Kong: 24.2.–26.2, 21.6.–21.6., BAO, China, 2.16m Telescope, Spectroscopy of blue compact dwarf galaxies;
- P. Meikle (Imp. College London), et al. (The European Supernova Collaboration): La Palma, WHT, 3 nights, ToO, Monitoring of nearby type Ia supernovae;
- P. Meikle (Imp. College London), et al. (The European Supernova Collaboration): Hawaii, UKIRT, 2 nights, ToO, Monitoring of nearby type Ia supernovae;

- A. Pozanenko (IKI, Moscow), M. Gilfanov: 16.5.–17.5., 10.6.–14.6., 5.7.–7.7., 30.12.–31.12., Special astrophysical observatory, Russia, 6m telescope, Simultaneous high time resolution observations of bright low mass X-ray binaries in optical and X-rays;
- P. Riuz-Lapuente (U. Barcelona), et al. (The European Supernova Collaboration): La Palma, NOT and other telescopes, 10 nights, ToO and scheduled, Monitoring of nearby type Ia supernovae;
- M. Turatto (Padua Observ.), W. Hillebrandt (MPA), et al. (The European Supernova Collaboration): ESO, La Silla, NTT, 3.6m, 2.2m, 50h per semester, ToO, Monitoring of nearby type Ia supernovae;
- S. White (MPA), A. Aragón-Salamanca (Nottingham), R. Bender (MPE), P. Best (ROE), M. Bremer (Bristol), S. Charlot (MPA & IAP), D. Clowe (Bonn), J. Dalcanton (U. Washington), B. Fort (IAP), P. Jablonka (OPM), G. Kauffmann (MPA), Y. Mellier (IAP), R. Pello (OMP), B. Poggianti (Padova), H. Rottgering (Leiden), P. Schneider (Bonn), D. Zaritsky (U. Arizona), M. Dantel (OPM), G. De Lucia (MPA), V. Desai (U. Washington), C. Halliday (Padova), B. Milvang-Jensen (Nottingham), S. Poirier (OPM), G. Rudnick (MPA), R. Saglia (Munich), L. Simard (U. Victoria): 19.4.–21.4., New Technology Telescope, La Silla, Chile, SOFI, EDisCS: The Eso Distant Cluster Survey;
- H.C. Spruit, G. Kanbach, F. Schrey: 10.5.–18.5 and 28.9–5.10., Mount Skinakas Observatory, Crete, 1.3m telescope, Coordinated fast X-ray + optical photometry of Cyg X-1 and Cyg X-2;
- H.C. Spruit, G. Kanbach, T. Belloni: 10.5.–18.5 and 29.9–5.10., Rossi X-ray Timing Explorer Coordinated X-ray + optical observations of Cyg X-1, Cyg X-2 (40 ks);
- H.C. Spruit, W.C. Livingston, C. Keller: 2.12.–6.12., National Solar Observatory, Kitt Peak, McMath telescope, Center-to limb variation of the 5250/5247 field strength ratio.;
- M. Stehle (MPA): 20.8.–31.8., Calar Alto Observatory, Spain, 2.2m Telescope, FOCES and CAFOS, Service observation for various institutes and projects;
- H.-C. Thomas, D. Grupe (MPE): 3.5.–7.5., McDonald Obs., UT Austin, U.S.A., 2.7m Telescope, CoolSpec, The age of AGN;
- S. White (PI) + 14 others: 6.2.–10.2. and 11.3.–19.3., UT4 of the VLT, Paranal, Chile, FORS2 The ESO Distant Cluster Survey;
- S. White, G. Rudnick, R. Pello (Toulouse), D. Clowe (Bonn): 32h service time, 2.2m ESO/MPG telescope, La Silla, Chile, WFI The ESO Distant Cluster Survey.

7 Auswärtige Tätigkeiten

7.1 Vorträge und Gastaufenthalte

- M. Bartelmann: „Kosmische Entwicklung im Spiegel der Galaxienhaufen“ (wissenschaftliches Kolloquium, Heidelberg, 13.3.)
- M. Bartelmann: „Strong and weak lensing by galaxy clusters“ (Taipeh, 22.4.–26.4.)
- M. Bartelmann: „Einstein’s Telescope: Gravitational lensing as a cosmological tool“ (wissenschaftliches Kolloquium, ESTEC, Noordwijk, 29.11.)
- S. Charlot: SDSS Workshop on „Galaxy Spectra“ (Tucson, USA, 14.1.–25.1.)
- E. Churazov: Workshop „Matter and Energy in Clusters of Galaxies“, Taiwan (23.04.–27.04.)
- E. Churazov: Workshop „CMB & Cosmology: Where Are We?“, Ringberg, Germany (02.12.–06.12.)

- E. Churazov: Workshop „High Energy Astrophysics 2002“, Moscow, Russia (24.12.–26.12.).
- B. Ciardi: Conference „Early Cosmic Structures Formation and the End of the Dark Ages“ (Elba, 4.6.–7.6.)
- B. Ciardi: 1st Joint Seminar Italy-Japan „Formation of the First Generation of Galaxies and Cosmological Implications“ (Florence, 8.7.–10.7.)
- T. Di Matteo: Black Holes: Theory Confronts Reality, Three Years Later „Observations and theory of non-radiative accretion flows“ (Institute of Theoretical Physics, Santa Barbara USA, 25.2.–28.2.).
- T. A. Enßlin: „Matter and Energy in Clusters of Galaxies“ (Taipei 23.4.-27.4.)
- M. Gilfanov: IAU Symposium No.214 „High Energy Processes and Phenomena in Astrophysics“ (Suzhou, China, 6.08–10.08).
- M. Gilfanov: „High Energy Astrophysics 2002“ (Moscow, 24.12.–26.12)
- W. Hillebrandt: „Nuclei in the Cosmos VII“ (Fuji-Yoshida, Japan, 8-12 July).
- W. Hillebrandt: Workshop on „Variability with Wide Field Imagers“ (Lampedusa Island, Italy, 16 - 20 September)
- H.-Th. Janka: Kolloquium, Univ. Giessen (Giessen, 7.2.)
- H.-Th. Janka: Kolloquium, Univ. Heidelberg (Heidelberg, 13.3.–14.03)
- H.-Th. Janka: 200th Meeting of the American Astronomical Society, (Albuquerque, New Mexico, 2.6.–6.6.)
- H.-Th. Janka: Kolloquium, Univ. Stuttgart (Stuttgart, 18.7.)
- H.-Th. Janka: ESO/MPA/MPE Workshop „From Twilight to Highlight: The Physics of Supernovae“ (Garching, 29.7.–31.7.)
- H.-Th. Janka: ECT* Collaboration Meeting on „Neutron Stars and Stellar Collapse“ (Trento, Italy, 29.10.–31.10.)
- H.-Th. Janka: 3rd SNSC Team Meeting (UCSC, Santa Cruz, 21.11.–23.11.)
- H.-Th. Janka: Kolloquium, TU München (Garching, 4.12.)
- G. Kauffmann: „Galaxy Evolution: Theory and Observations“ (Cozumel, 8.4.–12.4.)
- G. Kauffmann: „Star Formation through Time“ (Granada, 24.9.–28.9.)
- A. Merloni: 5th National Italian AGN Meeting „Inflows, Outflows and Reprocessing around Black Holes“ (Como, Italy, 11.6–14.6)
- E. Müller: Physikalisches Kolloquium (Basel, 18.1.)
- E. Müller: Astrophysical Colloquium (Turino, 7.5.)
- E. Müller: Physikalisches Kolloquium (Oldenburg, 13.5.)
- E. Müller: 4th EU Network Meeting „Theoretical Foundations of Sources for Gravitational Wave Astronomy in the Next Century“ (Palma de Mallorca, 26.-28.9.)
- E. Müller: Workshop on Theoretical Plasma Astrophysics „The Flowing Universe - Dynamics of Astrophysical Flows“ (Trieste, 11.-22.11.)
- S. Nayakshin: International Conference „Black Holes: Theory Confronts Reality, Three Years Later“ (Institute for Theoretical Physics, Santa Barbara, USA, 25.2.–28.2.)
- S. Nayakshin: International Conference „Active Galactic Nuclei: From Central Engine to Host Galaxy“, (Meudon, France, 23.7.–27.7.)
- J. Niemeyer: „(Alternative) Dark Matter, Cosmic Structure, and the Early Universe“ (Schloß Ringberg, 8.4.–12.4.)
- J. Niemeyer: „From Twilight to Highlight: The Physics of Supernovae“ (Garching, 29.7.–31.7.)

- V. Springel: CMBnet Annual Meeting 2002 (Castle Ringberg, 2.12.–4.12.)
- H.C. Spruit: 3rd Sakharov Conference on Physics and Astrophysics, (Moscow 24.6.–28.6.)
- H.C. Spruit: NATO ASI „Turbulence, Waves and Instabilities in the Solar Plasma“, (Budapest 16.9.–20.9.)
- H.C. Spruit: IAU Symposium 215 on Stellar Rotation, (Cancun, Mexico 11.11.–15.11.)
- R. Sunyaev: Three Scott lectures; Cavendish laboratory, (Cambridge University, 16.2.–24.2.)
- R. Sunyaev: Bruno Rossi Lecture in Astrophysics, MIT (Cambridge, USA, 7.5.)
- R. Sunyaev: 4th microquasar workshop; (Corsica France, 26.5.–1.6.)
- R. Sunyaev: Plenary talk on Physical Processes near accreting black holes and neutron stars; Third Sakharov conference on physics (Moscow, 26.6.–29.6.)
- R. Sunyaev: Two lectures on „Leonardo da Vinci“ Summer Course on Space Science, Mission concept and payload design in X- and Gamma-Ray astronomy (Bologna, 30.6.–2.7.)
- R. Sunyaev: Conference „Making Light of Gravity“, (Cambridge, England, 7.7.–13.7.)
- R. Sunyaev: Accretion Disks, Jets and High Energy Phenomena in Astrophysics, Centre for Theoretical Physics (Les Houches, 10.8.–18.8.)
- R. Sunyaev: Plenary talk during High Energy Astrophysics-2002 conference (Moscow, 24.12.–26.12.)
- F. van den Bosch: 3rd annual meeting of the RTN-IGM network „Feedback processes in the IGM“ (Gargonza, Italy, 14.9.–18.9.)
- R. Wegmann: Exploration of Small Solar System Objects: Past, Present and Future (Houston 14.10.–16.10.)
- S. White: Moriond Astrophysics Conference „The Cosmological Model“ (France, 16.3.–23.3.)
- S. White: Cozumel workshop „Galaxy Evolution: Theory and Observations“ (Mexico, 8.4.–13.4.)
- S. White: Cambridge Summer Conference „MJR60: Making Light of Gravity“ (U.K. 7.7.–12.7.)
- S. White: UNESCO International Conference on Theoretical Physics „TH-2002“ (France 22.7.–27.7.)
- S. White: RTN Network Meeting „The Intergalactic Medium“ (Italy, 14.9.–18.9.)
- S. White: Maryland October Astrophysics Conference „The Emergence of Cosmic Structure“ (U.S.A., 7.10.–9.10.)
- S. White: Ringberg workshop „Galaxy Clusters“ (Germany, 2.12.–4.12)
- S. White: XXI Texas Symposium „Texas in Tuscany“ (Italy, 8.12.–13.12)
- S. White: Oxford Workshop „Extending Frontiers in Cosmology: Joe at 60“ (Oxford U.K. 13.12.–15.12)

8 Veröffentlichungen

8.1 In Zeitschriften und Büchern

Erschienen:

- Alcock, C., R.A. Allsman, P. Popowski et al.: The MACHO Project Large Magellanic Cloud Variable Star Inventory. XII. Three Cepheid Variables in Eclipsing Binaries. *Astrophys. J.* **573** (2002), 338–350

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8.2 Konferenzbeiträge

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Wolfgang Hillebrandt