Garching

Max-Planck-Institut für extraterrestrische Physik

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0 Allgemeines

Die wissenschaftlichen Aktivitäten am MPE sind organisatorisch in vier große Arbeitsbereiche aufgeteilt, die jeweils von einem Direktor geleitet werden: (1) Infrarotund Submm/mm Astronomie (Prof. Dr. Reinhard Genzel), (2) Optische und Interpretative Astronomie (Prof. Dr. Ralf Bender), (3) Hochenergieastrophysik (Prof. Dr. Kirpal Nandra) und (4) Zentrum für Astrochemische Studien (Prof. Dr. Paola Caselli). Diese vier Arbeitsbereiche, sowie noch zusätzlich zwei unabhängige Forschungsgruppen, beschäftigen sich – oft bereichsübergreifend – mit unseren acht großen Forschungsthemen. Dabei werden überwiegend experimentelle Methoden angewandt, aber auch theoretische Untersuchungen durchgeführt. Der Name des Instituts bezieht sich einerseits auf den Gegenstand der Forschung: die Physik des Weltraums, andererseits auf die Forschungsmethoden: viele unserer Experimente werden notwendigerweise oberhalb der dichten, absorbierenden Erdatmosphäre mit Flugzeugen, Satelliten und Raumsonden durchgeführt. In zunehmendem Maße setzen wir aber, vor allem im optischen, im Infrarotbereich und in der Astrochemie, auch Instrumente an erdgebundenen Teleskopen ein. Methodisch lassen sich die Forschungsaktivitäten des MPE in mehrere Bereiche einteilen. In der beobachtenden Astrophysik werden am MPE innovative Instrumente vollständig oder zum Teil gebaut. Damit wird die Strahlung entfernter Objekte in den Millimeter/Submillimeter-, Infrarot-, Optischen-, Röntgenund Gammaspektralbereichen gemessen. Der hierbei überdeckte Teil des elektromagnetischen Spektrums umfasst mehr als zwölf Dekaden. Die untersuchten Objekte reichen von nahen Kometen bis zu den fernsten Quasaren, von winzigen Neutronensternen bis zu Galaxienhaufen, den größten bekannten Formationen im Kosmos. Theoretische Arbeiten liefern die Grundlagen zum Verständnis und Interpretation der Beobachtungen und Messungen. Die direkte Wechselwirkung von Beobachtern, Experimentatoren und Theoretikern im Hause ist ein Merkmal unseres Arbeitsstils und führt oft im direkten Wechselspiel von Hypothesen und Beobachtungstatsachen zu einem frühen Erkennen von Zusammenhängen und damit zu einer frühzeitigen Identifikation vielversprechender neuer Forschungsrichtungen. Ergänzt werden unsere Forschungsaktivitäten durch Experimente im Labor, mit denen sowohl die aus Theorie und Beobachtungen gewonnenen Ergebnisse überprüft als auch Informationen und Erkenntnisse gewonnen werden, die wiederum in theoretische Modelle und die Dateninterpretation einfliessen. Eine externe technologische Einrichtung des MPE ist von besonderer Bedeutung: Die 130 m lange Vakuumanlage Panter zum Test von Röntgenteleskopen in Neuried bei München. Fast alle röntgenastronomischen Experimente oder Teile davon wurden in dieser Anlage getestet. Unter anderem durch diese Einrichtung findet ein Transfer von neuen Verfahren und Methoden in die industrielle Anwendung statt. Im Rahmen unserer Transferaktivitäten hielt das MPE 12 Patente am Ende von 2021. Neben

der Forschung nimmt unser Institut auch universitäre Ausbildungsaufgaben wahr. Mehr als zehn MPE-Wissenschaftler sind als Hochschullehrer an zahlreichen Universitäten tätig und betreuen studentische Forschungsarbeiten, wie z.B. Bachelor-, Masterund Doktorarbeiten. Die Mehrzahl davon an den beiden Münchner Universitäten, aber auch an anderen deutschen Hochschulen und im Ausland. Darüber hinaus veranstalten wir spezielle Seminare und Symposien zu den im Institut behandelten Forschungsgebieten, häufig in Zusammenarbeit mit Universitätsinstituten. Unsere sehr erfolgreiche „International MaxPlanck Research School (IMPRS) on Astrophysics“ an der Ludwig-Maximilians-Universität (LMU) München brachte eine wesentliche Intensivierung der Doktorandenausbildung im Raum Garching/München. An dieser im Jahre 2000 gegründeten „Graduate School“ sind neben unserem Institut und dem Max-Planck-Institut für Astrophysik (MPA) noch das Institut für Astronomie und Astrophysik der LMU und die Europäische Südsternwarte beteiligt. Mit typisch 80 Doktoranden in diesem Programm, wovon etwa 30 am MPE arbeiten, gehört die IMPRS on Astrophysics zu den größten Einrichtungen dieser Art weltweit. Das MPE präsentiert seine Arbeit und die Ergebnisse seiner Forschung auch einem breiten Publikum. Regelmäßige Meldungen über die Wissenschaft, Projekte und Menschen am Institut werden ergänzt durch eine Vielzahl an Veranstaltungen sowohl im Hause als auch außerhalb, wie Führungen für Gruppen (meist Schulklassen), Teilnahme am jährlichen „Girls' Day“, dem zweijährig stattfindenden „Tag der offenen Tür“ sowie der Anleitung von Schülerund Hochschulpraktikanten. Darüber hinaus halten MPE Wissenschaftler regelmäßig populär-wissenschaftliche Vorträge außer Haus.

1 Personal und Ausstattung

1.1 Personalstand

Direktoren und Professoren:

Prof. Dr. P. Caselli (Geschäftsführung), Zentrum für Astrochemische Studien

Prof. Dr. K. Nandra, Hochenergie-Astrophysik

Prof. Dr. R. Bender, Optische und Interpretative Astronomie

Prof. Dr. R. Genzel, Infrarotund Submillimeter-Astronomie

Prof. Dr. G. Haerendel (emeritiert)

Prof. Dr. R. Lüst (emeritiert)

Prof. Dr. G. Morfill (emeritiert)

Prof. Dr. K. Pinkau (emeritiert)

Prof. Dr. J. Trümper (emeritiert).

Auswärtige wissenschaftliche Mitglieder:

Prof. Dr. E. van Dishoeck, Leiden Observatory (Niederlande)

MPE Prof. Dr. A. Fabian, Cambridge University (UK)

Prof. Dr. J. Kormendy, Univ. of Texas at Austin (USA)

Prof. Dr. R. Z. Sagdeev, Univ. of Maryland (USA)

Prof. Dr. M. Schmidt, CALTECH, Pasadena (USA)

Dr. K. Schuster, IRAM, Grenoble (Frankreich)

Prof. Dr. A. Sternberg, Tel Aviv University (Israel)

Fachbeirat:

Prof. Dr. C. Canizares, MIT, Kavli Institute, Cambridge (USA)

Prof. Dr. A. Celotti, SISSA, Trieste (Italien)

Prof. Dr. N. Evans, The University of Texas at Austin, Austin (USA)

Prof. Dr. K. Freeman, Mt Stromlo Observatory, Weston Creek (Australien)

Prof. Dr. A. Goodman, Harvard-Smithsonian Center for Astrophysics, Cambridge (USA)

Prof. Dr. R. C. Kennicutt, University of Arizona, Tucson (USA) and Texas A/M University, College Station (USA)

Prof. Dr. K. Kuijken, Universiteit Leiden, Leiden (Niederlande)

Prof. Dr. E. Quataert, University of California, Berkeley (USA)

Prof. Dr. G. J. Stacey, Cornell University, Ithaca (USA)

Fachübergreifende Fachbeiräte:

Prof. Dr. C. Cesarsky, Commissariat á l'Energie Atomique, France, Sacley-Paris (Frankreich)

Prof. Dr. J. Peacock, Universität Edinburg (UK)

Kuratorium (gemeinsam mit dem MPI für Astrophysik):

Prof. Dr. A. Bode, Leibniz-Rechenzentrum der Bayerischen Akademie der Wissenschaften, Garching

Dr. R. Breuer, ehem. Chefredakteur Spektrum der Wissenschaft, Heidelberg

Prof. Dr. P. Ehrenfreund, Vorstandsvorsitzende, Deutsches Zentrum für Luft und Raumfahrt (DLR), Köln

MdB F. Hahn, Deutscher Bundestag, Berlin

Prof. Dr. B. Huber, Präsident der Ludwig-Maximilians-Universität, München

Dr. F. Merkle, OHB System AG, Bremen

Dr. U. von Rauchhaupt, Frankfurter Allgemeine Zeitung, Frankfurt/Main

Prof. R. Rodenstock, Optische Werke G. Rodenstock GmbH Co. KG, München

Dr. J. Rubner, Bayerischer Rundfunk, München

Dr. M. Wolter, Bayer. Staatsministerium für Wirtschaft, Energie und Technologie, München

Wissenschaftliche Auszeichnungen, Berufungen:

Eisenhauer, F.: Tycho Brahe Medal, European Astronomical Society, Genf, Switzerland, March 2021.

Redaelli, E.: Otto Hahn Medal 2020, Max Planck Society, Munich, Germany, April 2021.

Predehl, Peter: MPE shares Institutional Marcel Grossmann Award for development of eROSITA aboard SRG, International Center for Relativistic Astrophysics, Rome, Italy, July 2021.

van Dishoeck, E.: Member, Pontifical Academy of Sciences, Vatican City, Vatican, August 2021.

Eisenhauer, F.: Stern Gerlach Medal, Deutsche Physikalische Gesellschaft(DPG) Bad Honnef, Germany, November 2021.

Eisenhauer, F.: Foreign Associate, Académie des Sciences, Paris, France, December 2021.

Eisenhauer, F.: Jackson-Gwilt Medal, Royal Astronomical Society, London, United Kingdom, December 2021.

Wissenschaftliche Mitarbeiter:

A) Infrarot und Submillimeter-Astronomie

Sekretariat: Richter, A.

Teamassistentinnen: Dengler, S.; Hagedorn, I (seit 01.03.); Kleiser, A.; ZankerSmith, J.

Bauböck, Dr. M. (bis 31.07.); Biondi, Dr. F.; Bourdarot, Dr. G. (seit 01.11.); Cao, Dr. Y. (seit 01.07.); Coogan, Dr. R.; Dallilar, Dr. Y.; Davies, Dr. R.; Eisenhauer, Dr. F.; Feuchtgruber, Dipl.-Phys. H.; Förster Schreiber, Dr. N.; Gillessen, Dr. S.; Habibi, Dr. M. (bis 15.10.); Kravchenko, Dr. K.; Lee, Dr. M. (bis 15.10.); Liu, Dr. D.; Lutz, Dr. D.; More, N.; Ott, Dr. T.; Poglitsch, Dr. A. (beurlaubt); Price, Dr. S.; Rabien, Dr. S.; Schruba, Dr. A. (bis 31.10.); Shangguan, Dr, J.; Shimizu, Dr. T.; Stadler, Dr. J. (bis 30.09.); Straub, Dr. O. (bis 30.11.); Sturm, Dr. E.; Tacconi, Dr. L.; Widmann, Dr. F. (seit 01.11.); Übler, Dr. H. (bis 15.05.); Yazici, Dr. S.

Doktoranden (D.) / Master (M.)

Bettoni, G. (seit 04.10., D., van Dishoeck); Bolzer, M.-L., (bis 30.09., M., Eisenhauer); Drescher, A. (bis 19.05., M., seit 17.06., D., Eisenhauer); Fellenberg von, S. (bis 31.12., D., Eisenhauer/Gillessen); Lee, L. Y.-L., (D., Tacconi, Förster-Schreiber); Kaltenbrunner, D. (bis 10.08., M. Shimizu); Mang, F. (seit 15.10., M., Eisenhauer); Santos, D. (seit 01.09., D., Shimizu/Lutz); Wölfer, L. (bis 15.10., D., van Dishoeck); Young, A. (bis 31.12., M., Gillessen)

B) Hochenergie-Astrophysik

Sekretariat: Boller, B.

Teamassistentin: Frankenhuizen, W.

Altmann, A. (seit 01.6.); Andritschke, Dr. R.; Antonelli, V.; Arcodia, R. (seit 01.10.); Becker, Dr. W.; Behrens, Dr. A.; Beitler, C.; Berlato, F. (bis 31.12.); Boller, Prof. Dr. Th.; Bonholzer, M.; Bradshaw, Dr. M. (bis 30.04.); Brunner, Dr. H.; Buchner, Dr. J.; Bulbul, Dr. E.; Burgess, Dr. M.J.; Burkert, Dr. W.; Buron, A.; Burwitz, Dr. V.; Carpano, Dr. S. (bis 31.12.); Chitham, I. J. (seit 01.11.); Comparat, Dr., J.; Dennerl, Dr. K.; Eraerds, Dr. T. (bis 30.04.); Eder, Dipl.-Ing. J.; Emberger, V.; Frank, J.; Freyberg, Dr. M.; Friedrich, Dr. P.; Friedrich, Dr. S.; Gaida, R.; Gatuzz, Dr. E. (bis 14.07.); Ghirardini, Dr. V.; Gueguen, Dr. A.; Greiner, Dr. J.; Haberl, Dr. F.; Hartner, Dipl. Math. G.; Haase, Dr. J.; Hauser, G.; Keil, Dr. I.; Kienlin von, Dr. A; Liu, Dr. A.; Liu, Dr. T.; Liu, Dr. Z.; Locatelli, N. (seit Personal 3 01.11.); Maitra, Dr. Ch.; Malyali, A. (seit 01.10.); Meidinger, Dr. N.; Merloni, Dr. A.; Müller, T.; Müller-Seidlitz, Dr. J.; Oser, J.; Osterhage, Dr. S.; Ott, S.; Pfeffermann, Dipl.-Phys. E.; Pietschner, D.; Predehl, Dr. P.; Ramos Ceja, Dr. M.; Rau, Dr. A.; Reiffers, Dr. J.; Rukdee, Dr. S. ; Salvato, Dr. M.; Sanders, Dr. J.; Schmidt, T.; Schweingruber, A.; Siegert, T. (seit 01.11.); Stieglitz, V.; Stewart, Dr. I.; Thi, Dr. W.-F.; Trümper, Prof. Dr. J.; Tsvetkova, Dr. A. (bis 31.12.); Zhang, Dr. X.-L. (bis 31.12.).

Doktoranden (D.) / Master (M.)

Bahar, E. (seit 23.09., D., Bulbul); Baronchelli, L. (bis 31.08., D., Nandra); Biltzinger, B. (D., Greiner); Bogensberger, D. (D., Nandra); Camilloni, F. (seit 01.05., D., Becker); Fresco, A. (D., Merloni); Grau, M. (bis 31.08., M., Salvato); Grotova, I. (bis 31.12., D., A. Rau); Hecker, Y. (seit 20.10., M., Greiner); Kaltenberger, D. (seit 01.10, D., Haberl); Igo, Z. (seit 01.10., D., Merloni); Kuhn, M. (M., Greiner); Lopez, N. (seit 27.09., M., Buchner); Mayer, M. (D., Becker); Pawar, A. (seit 01.11., M., Greiner); Pleintinger, M. (D., Diehl), Scheck, D. (bis 30.09., M., Sanders); Shreeram, S., (bis 31.08., M., seit 01.10., D., Bulbul); Seppi, R. (D., Comparat); Schösser, E. (seit 01.09., M., Greiner); Trost, M. (seit 01.04., M., Greiner); Waddell, S. (D., Nandra, Boller); Weinberger, C. (bis 30.09., D., Diehl); Willer, R. (seit 01.06., D., Greiner); Wolf, J. (D., Salvato); Yeung, H.F., (seit 17.09., D., Becker); Zhang, Y., (seit 25.08., D, Ponti); Zheng, X. (D. Ponti)

C) Optische und Interpretative Astronomie

Sekretariat: Ingram, C.

Bodendorf, Dr. C.; Böhringer, Prof. Dr. H.; Bohnet, Dipl. Phys. A.; Escartin, J.; Fabricius, Dr. M.; Farrow, Dr. M.; Gracia Carpio, Dr. J.; Grupp, Dr. F.; Haeuser, Dr. M. (bis 31.04.); Hopp, Dr. U.; Katterloher, Dr. R.; Kluge, Dr. M.; Kruk, Dr. S. (seit 01.10.); Paech, Dr. K.; Parikh, Dr. T.; Pezzotta, Dr. A; Pulsoni, Dr. C.; Raison, Dr. F.; Saglia, PD. Dr. R.; Sanchez, Dr. A.; Snigula, Dr. J.; Steinwagner, Dr. J.; Subramanian, Dr. S.; Thomas, Dr. J.; Varga, Dr. T (bis 30.09.); Weller, Prof. Dr. J.; Wetzstein, Dr. M.

Doktoranden (D.) / Master (M.)

Arth, A. (D., Bender); Bolze, R. (M., Bender); Clarke, J. (D., Blumhof, M. (M., Bender); Clarke, J. (D., Gerhard); DeNicola, S. (D., Saglia); Esposito, M. (D., Saglia); Fahrenschon, V. (D., Saglia); Gong, L. (D., Bender); Jouili A. (M., Saglia); Kellermann, H. (D., Grupp); Kodric, M. (D., Bender); Krecker, K. (D., Fabricius); Kuhlberg, M. (D., Saglia); Lipka, M. (D., Saglia); Lippich, M. (D., Bender); Merghan, K. (D., Bender); Neureither B. (D., Thomas); Piccinelli, G. (M., Saglia); Seminaite, A. (D., Sanchez); Smolla, M. (D., Bender); Steuer, J. (D., Grupp); Wylie, S. (D., Gerhard)

D) Zentrum für astrochemische Studien

Sekretariat: Langer, A.

de Oliveira Alves, Dr. F.; Endres, Dr. Ch.; Giuliano, Dr. B.M.; Gong, Dr. M.; Hsieh, Dr. T.-H.; Ivlev, Dr. A.; Jensen, Dr. S.; Jiménez Redondo, Dr. M.; Jusko, Dr. P.; Küffmeier, Dr. M.; Lattanzi, Dr. V.; Lin, Dr. Y.; Maureira Pinochet, Dr. M.J.; Nolan, Dr. Ch.; Pineda Fornerod, Dr. J.; Redaelli, Dr. E.; Schmiedeke Dr. A.; Segura-Cox, Dr. D. (bis 30.09.); Silsbee, Dr. K.; Sipilä, Dr. O.; Spezzano, Dr. S.; Zampetaki, Dr. A. (bis 31.05.)

Doktoranden (D.) / Master (M.)

Alberton, D. (D., Caselli); Carl, T. (bis 31.03., M., Pineda Fornerod, Schmiedeke), Choudhury, S. (D., Caselli, Pineda Fornerod); Ferrer Asensio, J., (D., Caselli, Spezzano); Giers, K. (bis 30.09., M., Spezzano); Giers, K. (ab 01.11., D., Caselli, Spezzano); Kruczkiewicz, F. (ab 01.02., D., Caselli); Müller, B. (D., Caselli, Giuliano); Riedel, W. (ab 01.06., D., Caselli, Redaelli);Tabatabaei Mazraeh No, F.S. (ab 19.04., D., Caselli, Redaelli); Valdivia Mena, M. T. (D., Caselli, Pineda Fornerod); Zamponi Fuentealba, J. (D., Caselli, Maureira Pinochet)

E) Unabhängige Forschungsgruppen

E1) Forschungsgruppe Gerhard

Gerhard, Dr. O.; Pulsoni, Dr. C.

PhD Students: Clarke, J.; Wylie, S.

Master Student: Almanstoetter, P.

E2 Forschungsgruppe van Dishoeck

van Dishoeck, Prof. Dr. E.; Cridland, Dr. A. (bis 15.10.); Hu, Dr. C.-Y.; Grant, Dr. S. (seit 13.09.)

PhD Students: Wölfer, L. (bis 14.10.); Bettoni, G. (seit 04.10.)

F) Ingenieurbereich und Werkstätten

F1) Elektronische Entwicklung

Plattner, Dr. M. (Leitung bis 30.06.); Albrecht, Dipl.-Ing. S. (Leitung seit 01.09.)

Barl, Dipl.-Ing. (FH) L.; Bechteler, Dr. T.; Besendörfer, A.; Bornemann, Dipl.-Ing. (FH) W.; Burghardt, Dipl.-Ing. (FH) T.; Buron, M.Sc. A.; Erhart, M.Sc.M.; Grabichler, M.Sc. J.; Hälker, Dipl.-Ing. (FH) O.; Hans, O.; Hartmann, K.; Kink, Dipl.-Ing. (FH) W.; Kshirsagar,

M.Sc. T.; Mandla, M.Sc. C.; Müller, Dipl.-Ing. (FH) S.; Neumeier, M.Sc. L.; Rau, M.Sc. C.; Skvarc Bozic, M.Sc. G.; Schulte, Dr. W.; Uysal, S. Yaroshenko, V.; Zanker-Smith, J.; Ziegleder, Dipl.-Ing. (FH) J.

F2) Elektronische Werkstatt und Haustechnik

Oberauer, F. (Leitung)

Bachhuber, M.; Berger A.; Cibooglu, H.; Greßmann, R.; Kreibich, I.; Langer, P.; Özdemir, H.; Rupprecht, T.; Schneider, M.; Schneider R.

Doktoranden (D.) / Master (M.) :

Alexander, B. (M., Plattner); Annadevara, S. (M., Plattner)

F3) Mechanik und Testlabor

Schubert, Dr. J. (Leitung)

Antonelli, Dr.-Ing. V.; Bräuninger, M.Sc. K. (bis 31.6.); Deysenroth, C.; Deysenroth, M.; Dittrich, Dipl.- Ing. (FH) K.; Emslander, A.; Geis, Dr. N.; Gemperlein, Dipl.-Phys. H.; Hartl, Dr. M.; Haußmann, F.; Hörmann, M.Sc. V.; Huber, Dipl.-Ing. H.; Mican, Dipl.-Ing. B.; Paßlack, Dipl.-Ing. (FH) S.; Pflüger, Dipl.-Ing. (FH) A.; Pietschner, Dipl.-Ing. (FH) D.; Rohe, C.; Strecker, R.; Frank, M.Sc. J.

F4) Mechanische Werkstatt

Czempiel, S. (Leitung)

Bayer, R.; Berger, K. (seit 01.02.); Brara, A.; Budau, B.; Eibl, J.; Feldmeier, P.; Folek L. (seit 13.09.); Furchtsam, C.; Goldbrunner, A.; Hartwig, J.; Honsberg, M.; Huber, D.; Huber, F.-X.; Kestler, H.-J.; Knapp, S.; Krautz, C. (bis 31.07.); Reinold, A. (bis 15.10.); Sandmair, R.; Schunn, W.; Schuppe, D.; Soller, F.; Waldhör, F. (seit 01.02.)

Auszubildende: Beck, A. (seit 01.09.); Furchtsam, S.; Heckmair, S.; Lindenmüller C. Loichinger, L.; Schaefer T. (seit 01.09.); Stadler, B.; Stübing, M.

G) Zentrale Bereiche

G1) Zentrale IT-Gruppe

Bohnet, Dipl. Phys. A. (Leitung) Agudo Berbel, A.; Baumgartner, H.; Kleiser, A.; Klose, L.; Kollmer, C.; Oberauer, A.; Ott, Dr. T.; Paul, J. (bis 31.05.2021); Piemonte, A.; Elsner, C.; Snigula, Dr. J.; Wieprecht, Dipl.-Ing. E.; Wiezorrek, Dipl.-Ing. (FH) E.

G2) Öffentlichkeitsarbeit

Hämmerle, Dr. H.; (Leitung) Herrmann, T. (seit 11.01.); Niebisch, B.

G3) Bibliothek

Bartels, C. (Leitung) Blank, E., Bolicevic, M.

G4) Verwaltung

Wanger, H. (Leitung VAD)

Sekretariat: Hesseler, G.

Apold, G.(bis 31.12.); Arturo, A.; Ayari, S.; Bauer, T.; Belscak, L. (bis 31.12.); Cziasto, U.; Eder, A.; Eicher, C.; Faust, T.; Gareva, L.; Goldbrunner, S.; Grohmann, M.; Hartung, I.; Hausmann, S.; Hidasi, R.; Jäkel, T.; Jirsch, Y.; Kaps, S.; Keil, M.; Kestler, L.; Krapivina, A.; Kuhwald, E.; Maier, E.; Nagy, A.; Neun, A. (BR); Paschou, J.; Preisler, C.; Rochner, R. (bis 28.02.); Rosenberger, S.; Sacher, A.; Schmidt, A.; Schwaiger, S.; Seyfarth, B.; Stock, C.; Stöckl, D.; Stricker, C.; Studier, S.; Thiess, F.; Thiess, L.; Üblacker, K.; Vogt, J.P (bis 31.05.); Zubanova, E. (seit 12.04.)

G5) IMPRS

Hilbert, A.

2 Lehrtätigkeit, Prüfungen und Gremientätigkeit

2.1 Lehrveranstaltungen/Seminare

Caselli, P.: Introduction to Astrochemistry. Departamento de Astronomía, Universidad de Concepción (Concepción, Chile) WS 20/21.

Eisenhauer, F.: High Angular Resolution Astronomy. Technische Universität München, SS 21.

Eisenhauer, F.: Introduction to Astrophysics. Technische Universität München, WS 20/21.

Boller, T.: AGN Physics. Goethe-Universität, Frankfurt am Main, SS 20.

Boller, T.: Strahlung und Materie. Goethe-Universität, Frankfurt am Main, SS 21.

Boller, T.: IMPRS Advanced Course on AGN Physics. IMPRS MPE Garching, Garching, SS 21.

Saglia, R.: Essentials of astrophysics. LMU München, SS 21.

3 Akademische Abschlussarbeiten

3.1 Bachelorarbeiten

Abgeschlossen:

Ecker, L.: The mass of the supermassive black hole of the BCGs of Abell 498/592. Albert-Ludwig Universitaet Freiburg, 2021.

Haubold, T.: Atmosphaerenphysik von Exoplaneten. LMU, 2021.

Loebbecke, M.: Massenbestimmung von supermassiven schwarzen Löchern und Korrelationen. LMU, 2021.

Perez de Lema Ezcurra, M.: Supermassereiche schwarze Loecher in aktivn Galaxienkernen und ihre Charakterisierung mittels H2 O-Maser Emissionen. LMU, 2021.

Wiertel, M.: Massenbestimmung supermassiver schwarzen Loecher. Karlsruher Institut für Technologie, 2021.

Yasar, D.: Phaenomene bei Naehrung von Sternen an supermassive schwarze Loecher. LMU, 2021.

3.2 Masterarbeiten

Abgeschlossen:

Blumhoff, M.: 2D stellar kinematics of (barred) disk galaxies. LMU, 2021.

Bolzer, M.-L.: Upgrading a VLTI beam compressor into a differential delay line. Max Planck Institute for Extraterrestrial Physics, 2021.

Drescher, A.: First Observations with GRAVITY Wide. Max Planck Institute for Extraterrestrial Physics, 2021.

Giers, K.: Deuteration of c-C3 H2 towards the prestellar core L1544. MPE, 2021.

Gonzales, J.: Stacking the Spectra of eROSITA Galaxy Cluster Data for Searches of the 3.5keV line: Dark Matter Decay or Charge Exchange?. MPE/LMU, 12.2021.

Grau, M.: The eROSITA Final Equatorial-Depth Survey (eFEDS): optical spectroscopy of the counterparts to the point-like sources. MPE, 2021.

Haase, M.: Control Electronics Development for GRAVITY+ Wavefront Sensors. TU Mün-

chen, 2021.

Kaltenbrunner, D.: A comprehensive Study of Molecular Gas near Active Galactic Nuclei. Max-Planck-Institut für extraterrestrische Physik, 2021.

Ozsoy, Y.: Finding Superclusters with eROSITA. MPE/ LMU, 10.2021.

Scheck, D.: Mass Profiles of Galaxy Clusters in the eROSITA Survey. Technical University of Munich, 2021.

Wimmer, L.: Investigation of Collective Complex Plasma Phenomena with PK-4. Max Planck Institute for Extraterrestrial Physics, 2021.

Young, A.: Determining stellar accelerations in the regime of the clockwise disk in the Galactic Center. Institue for Extraterrestrial Physics, 2021.

3.3 Dissertationen

Abgeschlossen:

Arcodia, R.: Accretion onto black holes across the mass scale. Ludwig Maximilian University, 2021.

Ider Chitham, J. (2021). Galaxy cluster identification with eRosita in the era of big data. PhD Thesis, Ludwig Maximilians Universität München, München, Germany.

Kaltenbrunner, D.: A comprehensive Study of Molecular Gas near Active Galactic Nuclei. MPE, 2021.

Lippich, M.: On unbiased and higher-order large-scale structure statistics: Covariance Matrices and Minkowski Functionals. Max-Planck-Institute for Extraterrestrial Physics, 2021.

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5 Projekt-Gruppen

5.1 Infrarot- und Submillimeter-Astronomie

Stellvertreter des Gruppendirektors: Lutz, Tacconi.

ERIS: Buron, Dallilar, R. Davies, Dengler, M. Deysenroth, Eisenhauer, Feuchtgruber, Gemperlein, Hans, Hartl, Hartwig, D. Huber, H. Huber, Kleiser, Kravchenko, Mandla, Pflüger, Plattner, C. Rau, Schubert, Sturm, Wiezorrek.

GRAVITY, GRAVITY+: Bauböck, Bolzer, Bourdarot, Buron, Cao, de Zeeuw, Dengler, Drescher, Eisenhauer, Genzel, Gillessen, M. Haase, Hartl, Haußmann, Lutz, Mandla, Mang, More, T. Ott, Pflüger, C. Rau, Santos, Schubert, Shangguan, Shimizu, Stadler, Straub, Sturm, Tacconi, Uysal, von Fellenberg, Widmann, Wieprecht, Wiezorrek, Yazici, Zanker-Smith.

LBT Argos: Barl, Ric Davies, M. Deysenroth, Gemperlein, Rabien, Zanker-Smith, Ziegleder

MICADO: Barl, Biondi, Cao, R. Davies, Dengler, J. Eder, Eisenhauer, Andreas Emslander, Förster Schreiber, Geis, Gemperlein, Genzel, Gillessen, Hartl, Haußmann, Hörmann, H. Huber, Kleiser, Kravchenko, Neumeier, Pflüger, Plattner, Rabien, Schubert, Sturm, Ziegleder.

Galaktisches Zentrum: Bauböck, Bourdarot, Dallilar, Eisenhauer, Genzel, Gillessen, Habibi, Mang, T. Ott, von Fellenberg, Stadler, Straub, Widmann, Young, de Zeeuw.

Galaxienkerne: Cao, R. Davies, Genzel, Kaltenbrunner, Lutz, Schruba, Shangguan, Santos, Shimizu, Sturm, Tacconi, de Zeeuw.

Galaxien bei hoher Rotverschiebung: Cao, Coogan, Förster Schreiber, Genzel, Habibi, L. Lee, M. Lee, D. Liu, Lutz, Price, Schruba, Sturm, Tacconi, Übler.

Sternentstehung: Bettoni, Cridland, Grant, Hu, Schruba, van Dishoeck, Wölfer.

5.2 Hochenergie-Astrophysik

ATHENA/Spiegel: Bradshaw, Budau, Burwitz, Hartner, Langmeier, Müller, Passlack, Rukdee, Schmidt.

ATHENA/WFI: Albrecht, Andritschke, Antonelli, Behrens, Beitler, Bonholzer, Bor-

nemann, Eder, Emberger, Eraerds, Frank, Freyberg, Haberl, Hälker, Hartmann, Hauser, Kink, Köglmeier, Lederhuber, Meidinger, Mican, Müller-Seidlitz, Nandra, Oser, Ott, Pietschner, Plattner, A. Rau, Reiffers, Schubert, Schweingruber, Strecker, v. Kienlin.

Chandra: Burwitz, Predehl.

Einstein Probe/Detektor: Keil, Meidinger, Nandra.

Einstein Probe/Spiegel: Budau, Burwitz, Eder, Friedrich, Gaida, Hartmann, Hartner, Langmeier, Z. Liu, Müller, Passlack, Pfeffermann, Rohe, Rukdee,

Schmidt, Schuppe, Stieglitz.

eROSITA: Andritschke, Becker, Boller, Bornemann, , Brunner, Budau, Burghardt, Bulbul, Burwitz, Carpano, Coutinho, Dennerl, Dittrich, Eder, Eibl, Emberger, Eraerds, Freyberg, P. Friedrich, S. Friedrich, Gaida, Goldbrunner, Gueguen, Haberl, Hälker, Hartmann, Hartner, F. Huber, Kink, Maitra, Meidinger, Merloni, Mican, S. Müller, Nandra, F. Oberauer, Pfeffermann, Pietschner, Predehl, Ramos-Ceja, Rau, Reiffers, Rohé, Rupprecht, Salvato, Schuppe, Soller, Stewart, Trümper, v. Kienlin, Yaroshenko.

ROSAT: Boller, Freyberg, Haberl, Trümper.

Swift: Greiner.

XMM-Newton: Boller, Dennerl, Freyberg, Haberl, Meidinger, Trümper.

Fermi: Collmar, Diehl, Greiner, v. Kienlin.

GROND: A. Rau.

INTEGRAL: Diehl, Greiner, v. Kienlin, Siegert, X.-L. Zhang.

MXT-SVOM: Bradshaw, Burwitz, Budau, Hartner, Langmaier, Müller, Passlack, Meidinger, Nandra, Rukdee, Schmidt, A. Rau.

eXTP: Altmann, Bechteler, Meidinger, Nandra, Yazici.

4MOST: Comparat, Laas, Merloni, Salvato, Thi.

Aktive Galaxien: Boller, Buchner, Collmar, Comparat, T. Liu, Merloni, Nandra, Salvato.

Clusters of Galaxies: Buchner, Bulbul, Comparat, Dewlly, Gatuzz, Ghiradini, A. Liu, Locatelli, Ramos-Ceja, Sanders

eBOSS/SPIDERS: Comparat, Merloni, Nandra, Salvato.

5.3 Optische und Interpretative Astronomie

Large Scale Structure, eBoss, HETDEX: Bender, Farrow, Fabricius, Hopp, Sanchez.

EUCLID: Bender, Escartin, Fabricius, Garcia Carpio, Grupp, Kruk, Hartung, Raison, Saglia, Steinwagner, Wetzstein.

Galaxy Dynamics: Bender, Gajda, Gerhard, Parikh, Saglia, Thomas.

INODE: Bender, Fabricius, Subramanian

GRAVITY+: Bender, Fabricius.

KMOS: Bender, Saglia.

MICADO: Bender, Fabricius, Grupp, Saglia, Thomas.

PanSTARRS: Bender, Farrow, Hopp, Saglia.

Prime Focus Spectropraph: Bender, Fabricius, Garcia Carpio, Sanchez.

Stellare Populationen und Galaxienentstehung: Bender, Hopp, Parikh, Saglia.

Zentrum für astrochemische Studien

Beobachtungen: De Oliveira Alves, Hsieh, Jensen,Lin, Maureira Pinochet, Pineda Fornerod, Redaelli, Schmiedeke, Segura-Cox, Spezzano.

Theorie: Gong, Grassi, Ivlev, Nolan, Rab, Silsbee, Sipilä, Zhao.

Labor: Endres, Giuliano, Jiménez Redondo, Jusko, Lattanzi, Spezzano.

6 Projekte und Kooperationen

6.1 Wissenschaftliche Kooperationen

Belgien

Katholieke Universiteit Leuven, Leuven: GRAVITY+.

Brasilien

Universidade Federal de Minas Gerais, Belo Horizonte: CASObservations.

Chile

ESO, Joint ALMA Observatory, Santiago de Chile: CASObservations; SBNAF.

Universidad de Chile, Santiago de Chile: CAS-Observations.

Universidad de Concepcion: MaxPlanck-Partnergruppe Baryonischer Zyklus in Galaxien; Röntgen-Doppelsternsysteme; CASObservations; Galaxienentwicklung.

Universidad Catolica Santiago, Santiago de Chile: Röntgen-Doppel sternsysteme; Max-Planck-Partnergruppe Galaktisches Zentrum.

Universidad Diego Portales, Santiago de Chile: CAS-Observations.

China

Donghua University, Shanghai: CAS-Theory.

Institute for High-Energy Physics (IHEP), Peking: Gammaquellen mit COMPTEL und INTEGRAL; Einstein Probe; eXTP.

Nanjing University, Nanjing: CAS-Observations.

National Astronomical Observatories of China, Peking: PFS; CAS-Observations; CAS-Theory.

Kavli Institute for Astronomy and Astrophysics at Peking University, Peking: PFS.

Shanghai Jiao Tong University, Shanghai: PFS.

Tsinghua University, Peking: PFS.

University of Hongkong, Hongkong: Strahlungsmechanismen von Pulsaren im Röntgen- und Gammabereich.

University of Science and Technology of China, Hefei: PFS.

Xiamen University, Xiamen: PFS.

Xinjiang Astronomical Observatory, Ürümqi: CAS-Theory.

Dänemark

Dänemarks Technische Universität, Lyngby: ATHENA.

Niels Bohr Institute, University of Copenhagen: CAS-Theory.

Deutschland

Astrophysikalisches Institut Potsdam, Potsdam: eROSITA; XMMNewton; OPTI-

MA; ARGOS; HETDEX; 4MOST.

Deutsches Elektronen-Synchrotron, Hamburg: CAS-Laboratory.

European Southern Observatory (ESO), Garching: GRAVITY; GRAVITY+; Galaxienentstehung; Nukleare Astrophysik; MICADO; ERIS; Black Hole Cam; Infrared Dark Clouds; CAS-Observations; CAS-Theory.

Fraunhofer Institut für Integrierte Schaltungen, Erlangen: Mikroelektronikentwicklungen; ATHENA.

Fraunhofer Institut for Computer Graphics Research IGD, Darmstadt: IODE.

Heinrich-Heine-Universität, Düsseldorf: Soft Matter Physics.

Institut für Astronomie und Astrophysik Tübingen (IAAT), Tübingen: XMM-Newton; eROSITA; ATHENA; ESBO-DS.

Institut für Astrophysik Göttingen, Göttingen: MICADO.

Institut für Festkörperphysik und Werkstoff-Forschung, Dresden: Entwicklung weichmagnetischer Werkstoffe.

Institut für Materialphysik im Weltraum, Köln: Glasübergänge.

Landessternwarte Heidelberg-Königstuhl, Heidelberg: Galaxienentstehung; ARGOS.

Laser Zentrum Hannover, Hannover: Dichroics for ARGOS; Anti-Refl ection Coating ERIS.

Ludwig-Maximilians-Universität, München: MICADO; HETDEX; eROSITA; CAS-Theory.

Max-Planck-Institut für Astronomie, Heidelberg: GRAVITY; GRAVITY+; Pan-STARRS; SDSS; ARGOS; MICADO; EUCLID; CAS-Theory.

Max-Planck-Institut für Astrophysik, Garching: SDSS; OPTIMA; eROSITA; PFS.

Max-Planck-Institut für Gravitationsphysik, Potsdam: Black Hole Cam.

Max-Planck-Institut für Physik, Werner Heisenberg Institut, München: MPG Halbleiterlabor; Athena.

Max-Planck-Institut für Radioastronomie, Bonn: ARGOS; Black Hole Cam; CAS-Observations; CAS-Theory.

Physikalisch-Technische Bundesanstalt Berlin, Berlin: eROSITA.

Technische Universität Berlin, Berlin: Interstellares Medium.

Technische Universität Darmstadt, Darmstadt: CAST.

Technische Universität München: Nukleare Astrophysik; ESBO-DS.

Thüringer Landessternwarte Tautenburg, Tautenburg: GROND; Gamma-Ray Bursts.

Universität Bonn, Bonn: ATHENA; eROSITA; EUCLID; CASObservations.

Universität der Bundeswehr, München: SBNAF.

Universität Düsseldorf, Düsseldorf: ERC Advanced Grant; CAS-Theory.

Universität Erlangen (ECAP), Erlangen: eROSITA; ATHENA.

Universität Hamburg, Hamburg: eROSITA; OPTIMA (Flarestars).

Universität Heidelberg, Heidelberg: ATHENA; XFEL; CASTheory.

Universität Jena, Jena: Isolierte Neutronensterne; Nukleare Astrophysik.

Universität Kassel, Kassel: CAS-Observations, CAS-Laboratory.

Universität Köln, Köln: Galaktisches Zentrum; GRAVITY; GRAVITY+; CAS-Obser-

vations; CAS-Theory; CAS-Laboratory.

Universität Mannheim, Mannheim: ATHENA; XFEL.

Universität Stuttgart, Stuttgart: ESBO-DS.

Universität Würzburg, Würzburg: AGADE.

Finnland

University of Helsinki, Helsinki: CAS-Theory; CAS-Observations.

University of Turku - Finnish Centre for Astronomy with ESO (FINCA), Turku: MICADO.

Frankreich

Aix-Marseille University, Marseille: CAS-Theory.

CEA, Saclay: INTEGRAL-Spektrometer SPI; EUCLID; SVOM; ATHENA.

Centre d'Etude Spatiale des Rayonnements (UPS), Toulouse: INTEGRAL Spektrometer SPI; CAS-Observations.

Centre National de la Recherche Scientifique, Paris: INODE.

IAP, Paris: Nukleare Astrophysik.

IPAG, Grenoble: GRAVITY; GRAVITY+; MICADO; CAS-Observations; CAS-Theory.

IRAM, Grenoble: CAS-Observations.

IRAM, Saint-Martin-d'Héres: CAS-Observations; Galaxienentstehung.

Laboratoire d'Astrophysique de Marseille (LAM), Marseille: EUCLID; Gamma-Ray Bursts; PFS; CAS-Observations.

Laboratoire Univers et Particules de Montpellier, Montpellier: Cosmic ray propagation in molecular clouds.

Observatoire astronomique de Strasbourg, Strasbourg: ATHENA

Observatoire de la Côte d'Azur Nice (OCA), Nizza: GRAVITY+.

Observatoire de Paris (GEPI), Paris: MICADO; GRAVITY.

Observatoire de Paris (LERMA), Paris: CAS-Theory.

Observatoire de Paris (LESIA), Paris: MICADO; GRAVITY.

Observatoire de Paris-Meudon, Paris: GRAVITY; GRAVITY+; Galaktisches Zentrum.

SOLEIL Synchrotron (AILES beamline), Saint-Aubin: CAS-Laboratory.

Université de Bordeaux, Bordeaux: CAS-Theory.

Université de Cergy-Pontoise, Cergy Pontoise Cedex: CASObservations.

Université de Franche-Comté (UTINAM), Besançon: MICADO

Université de Lyon (CRAL), Lyon: GRAVITY+; CAS-Observations.

Université de Rennes, Rennes: CAS-Laboratory; CAS-Observations.

Université de Toulouse, Toulouse: CAS-Observations; CAS-Laboratory.

Universite Paris Diderot, Paris: CAS-Observations.

Université Paris-Saclay, Saclay: CAS-Laboratory; CAS-Observations.

Griechenland

ATHENA RC, Research and Innovation Centre in Information, Communication and Knowledge Technologies, Athen: INODE.

Infili Technologies, Athen: INODE.

University of Crete and Foundation for Research and Technology Hellas (FORTH), Heraklion: Röntgendoppelsternsysteme; OPTIMA Photometer; Röntgen-AGN.

National Observatory of Athens, Athen: Athena; eROSITA.

Großbritannien

John Moores University, Liverpool: Himmelsdurchmusterung Galaxienhaufen; Infrared Dark Clouds; CAS-Observations.

Open University, Milton Keynes: Kataklysmische Variablen; Novae; ATHENA.

Queen's University, Belfast: PanSTARRS.

Queen Mary University of London, London, UK: CAS-Observations; CAS-Theory.

Rutherford Appleton Laboratory, Council for the Central Laboratory of the Research Councils, Swindon: SIS-Junctions.

Jodrell Bank Observatory, Macclesfield: CAS-Observations.

United Kingdom Astronomy Technology Centre (UKATC), Edinburgh: EUCLID; ERIS.

University of Cambridge, Cambridge: DES, CAS-Theory.

University College London, London: High Energy Pulsars; EUCLID; DES; CAS-Observations.

University of Durham, Durham: PanSTARRS.

University of Edinburgh, Edinburgh: DES; PanSTARRS.

University of Leeds, Leeds: CAS-Theory.

University of Leicester, Leicester: XMM-Newton; ATHENA; Swift.

University of Nottingham, Nottingham: DES.

University of Portsmouth, Portsmouth: DES.

University of Sussex, Brighton: DES.

University of Southampton, Southampton: GRAVITY+; Magellanic Clouds.

Indien

Tata Institute of Fundamental Research, Mumbai: CAS-Observations.

Irak

University of AL-Muthanna, AL-Muthanna: CAS-Observations.

Irland

National University of Ireland, Galway: High Time Resolution Astronomy; CAS-Theory.

University College Dublin, Dublin: Fermi/GBM.

Israel

School of Physics and Astronomy, Wise Observatory, Tel Aviv: Aktive Galaxien; Interstellares Medium; Galaxienentwicklung.

Italien

Free University of Bozen-Bolzano, Bozen: INODE.

IFCAI-CNR Palermo, Palermo: XMM-Newton Beobachtungen von Neutronensternen und Pulsaren.

INAF (Instituto Nationale di Astrofisica), Rom: ATHENA, EUCLID.

INAF Arcetri, Florenz: ARGOS; LBT; ERIS; CAS-Observations; CAS-Theory.

INAF Padua, Padua: LBT; MICADO; ERIS.

INAF Roma, Rom: LBT; Nukleare Astrophysik.

INAF Teramo, Teramo: ERIS.

INAF Trieste, Triest: Gamma-Ray Bursts; Fermi/LAT.

INFN Frascati, Frascati: SIDDHARTA.

Osservatorio Astronomico di Brera, Brera: Himmelsdurchmusterung Galaxienhaufen.

Osservatorio Astrofisico di Catania, Catania: CAS-Theory; CAS-Laboratory.

Scuola Normale Superiore, Pisa: CAS-Observations.

Università degli Studi di Firenze, Florenz: CAS-Observations; CAS-Theory.

Università degli Studi di Milano, Mailand: CAS-Observations.

Università degli Studi di Torino, Turin: CAS-Observations.

Università di Bologna, Bologna: EUCLID; CAS-Theory; CAS-Laboratory; CAS-Observations.

Università di Perugia, Perugia: CAS-Observations.

Japan

Academia Sinica, Nangang: PFS.

Kavli Institute for the Physics and Mathematics of the Universe, Kashiwa: PFS.

Kobe University, Kobe: CAS-Theory.

National Astronomical Observatory of Japan, Mitaka/ Tokio: CAS-Theory; CAS-Observations; Galaxienentwicklung; PFS.

Institute of Physical Chemical Research, Saitama: CAS-Observations.

Japan Aerospace Exploration Agency,Sagamihara,Kanagawa: SBNAF.

Tokio Institute of Technology (TITECH), Ookayama: ASCA/XMM-Newton Beobachtungen von AGN.

University of Osaka, Osaka: Astro-H.

University of Tokyo, Tokyo: PFS; CAS-Observations.

University of Tokyo, Institutes for Advanced Study (UTIAS), Tokyo: PFS.

Tohoku University, Sendai: Galaxienentwicklung.

Kanada

University of Toronto, Toronto: CAS-Theory.

Lettland

Ventspils University College, Ventspils: CAS-Theory.

Mexiko

Universidad Nacional Autonoma de México, Ensenada: CASObservations.

Niederlande

ESTEC, Noordwijk: XMM-Newton; INTEGRAL; EUCLID; ATHENA; eROSITA.

JIVE Dwingeloo, Dwingeloo: Black Hole Cam.

NOVA (Leiden, Groningen, ASTRON/Dwingeloo, Amsterdam): MICADO; ERIS.

Leiden University, Leiden: CAS-Observations; CAS-Theory; IR/ Submm Spectroscopy.

Radboud University, Nijmegen: Black Hole Cam; CAS-Laboratory.

SRON, Utrecht: Chandra-LETG.

University of Groningen, Kapteyn Institute, Groningen: Rekonstruktion der Dichteverteilung im Universum; EUCLID; Dynamical-Chemical Models; CAS-Theory; CAS-Observations.

Österreich

Institut für Weltraumforschung, Graz: ATHENA WFI.

Universität und TU Wien, Wien: MICADO; ATHENA.

Universität Innsbruck, Innsbruck: MICADO.

Universität Linz, Linz: MICADO.

RICAM Linz, Linz: MICADO.

Polen

Nicolaus Copernicus University, Torun: Pulsars Astronomical Centers; ATHENA.

Space Research Center (CBK), Warschau: ATHENA WFI.

Astronomical Observatory Institute, Poznań: SBNAF.

University Zielona Gora, Zielona Gora: OPTIMA.

Portugal

CENTRA Lissabon und Porto, Lissabon: GRAVITY; GRAVITY+.

Observatorio Astronomico de Lisboa, Lissabon: ATHENA.

Universidade de Coimbra, Coimbra: Departamento de Engenharia Química: CAS-Laboratory.

Russland

Baumann Moscow State Technical University, Moskau: Stark gekoppelte Systeme; Time-domain spectroscopy; CAS-Theory; CAS-Laboratory.

Institute of Astronomy, Moskau: CAS-Theory.

Lebedev Institute of Physics, Moskau: CAS-Theory.

Prokhorov General Physics Institute, Moskau: CAS-Laboratory.

Space Research Institute (IKI) of the Russian Academy of Science, Moskau: eROSITA/Spektrum Röntgen-Gamma.

Skobeltsyn Institute of Nuclear Physics, Moskau: Nukleare Astrophysik; Gamma-Ray Bursts; AGADE.

Ural Federal University, Jekaterinburg: CAS-Theory.

Schweden

Chalmers University of Technology, Onsala Space Observatory, Onsala: CAS-Observations.

University Lund/Observatory, Lund: OPTIMA.

Schweiz

CERN, Geneva: CAST.

ETH Zürich, Zürich: ERIS.

Observatoire de Genève Sauverny, Genf: ISDC/INTEGRAL; Nukleare Astrophysik;

EUCLID.

Swiss Institute of Bioinformatics, Lausanne: INODE.

Universität Basel, Basel: Nukleare Astrophysik.

University of Geneva, Genf: ATHENA.

University of Zurich, Zürich: Infrared Dark Clouds.

Zürcher Hochschule für Angewandte Wissenschaften, Zürich: INODE.

Spanien

Centro de Investigaciones Energeticas, Medioambientales y Tecnologicas, Madrid: DES.

Centro de Astrobiología (CSIC/INTA), Madrid: CAS-Laboratory.

ESAC, Madrid: XMM-Newton Science Operations Center; INTEGRAL

Science Operations Center; Herschel; Euclid; SBNAF.

Instituto de Astrofísica de Andalucía (IAA), Granada: SBNAF; ESBO-DS.

Instituto de Astrofísica de Canarias, La Laguna: SBNAF.

Instituto de Ciencias del Espacio, Bellaterra: DES.

Instituto de Ciències de l'Espai, Cerdanyola del Vallès: CASObservations.

Institut de Fisica d'Altes Energies, Barcelona: DES; EUCLID.

Javalambre Physics of the Accelerating Universe Astrophysical Survey (J-PAS), Javalambre: eROSITA follow up.

SIRIS Academic SL, Barcelona: INODE.

Universitat Autònoma de Barcelona, Bellaterra: CAS-Observations.

Universidad de Valencia, Department de Astronomia, Valencia: INTEGRAL Spektrometer SPI.

Universidad de Zaragoza, Zaragoza: CAST.

Observatorio Astronómico de Mallorca, Costitx: Novae; Kometen.

Observatorio Astronómico Nacional, Madrid: CAS-Observations.

Südkorea

Seoul National University, Seoul: Hayabusa-2.

Taiwan

Academia Sinica Institute of Astronomy and Astrophysics (ASIAA), Taipei: CAS-Theory; CAS-Observations; PFS.

National Central University, Chungli; PanSTARRS.

Tschechien

Charles University, Prag: SBNAF; Hayabusa-2.

Ungarn

Konkoly Observatory of the Hungarian Academy of Sciences, Budapest: SBNAF, CAS-Observations, CAS-Theory.

USA

Argonne National Laboratory, Lemont: DES.

Brookhaven National Laboratory, Upton: strahlenharte JFETElektronik; strahlenharte Detektoren.

Benedictine College, Atchison: CAS-Theory.

California Inst. of Technology, Pasadena: X-ray Survey; PFS.

CfA, Cambridge: ATHENA/WFI; XMM-Newton/Chandra Kalibration.

Clemson University, Clemson: Gamma-Ray Bursts; Nukleare Astrophysik.

Fermilab, Batavia: DES.

Harvard University, Cambridge: PanSTARRS.

Harvard-Smithsonian Center for Astrophysics, Cambridge: CASObservations; CAS-Laboratory; CAS-Theory.

Institute for Astronomy, Hawaii, Honolulu: Galaxienentstehung; PanSTARRS; NIR Kamera für Wendelstein.

Johns Hopkins University, Baltimore: PanSTARRS; PFS.

Marshall Space Flight Center, Huntsville: Fermi GammaRay Burst Monitor; XMM-Newton und Chandra Beobachtungen von Neutronensternen, Pulsaren und Supernova-Überresten.

MIT, Cambridge: ATHENA WFI.

NASA/Ames Research Center, Mofett Field: MHD Shocks; SBNAF.

NASA/Goddard Space Flight Center, Greenbelt (MD): INTEGRAL-Spektrometer SPI; Swift.

NASA/Jet Propulsion Laboratory, Pasadena: EUCLID; PFS; CAS Observations.

National Radio Astronomy Observatory, Charlottesville: CAS-Theory; CAS-Observations.

National Radio Astronomy Observatory, Socorro, New Mexico: CAS-Observations.

National Science Foundation, Arlington: CAS-Observations.

NOAO, Tucson: DES.

Ohio State University, Columbus: DES; LBT.

Pacific Northwest National Laboratory (PNNL), Richland: CAST.

Pennsylvania State University, State College: HETDEX; Swift; ATHENA.

Princeton University, Princeton: PFS; CAS-Theory.

Research Corporation, Tucson: LBT.

San Jose State University, San Jose: MHD shocks.

SLAC, Stanford: CAMP; DES; ATHENA.

Smithsonian Astrophysical Observatory, Cambridge: Chandra-LETGS; PanSTARRS; Röntgendoppelsterne in M31; Athena.

Space Telescope Science Institute, Baltimore: Galaxienentstehung; PanSTARRS; Turbulence; SBNAF.

Stanford University, Stanford: DES; Fermi/LAT; Fermi/ GBM.

Texas A and M University, College Station: DES; SBNAF.

Texas State University, San Marcos: HETDEX.

University of Arizona, Tucson: Kosmische Strahlung; Planetenentstehung; LBT; ARGOS; CAS-Observations.

University of California, Berkeley: MPG/UCB-Kollaboration; FAST; INTEGRAL Spektrometer SPI; Superbubbles.

University of California, Santa Cruz: DES.

University of Chicago, Chicago: CAS-Observations; DES.

University of Colorado, Boulder (Co): Superbubbles; CAS-Observations; Galaxienkerne.

University of Florida, Gainesville: Infrared Dark Clouds.

University of Hawaii, Honolulu, Hawaii: CAS-Theory.

University of Illinois, Urbana-Champaign: DES.

University of Massachusetts, Amherst: CAS-Observations.

University of Michigan, Ann Arbor: DES.

University of Nevada, Las Vegas: CAS-Observations.

University of Pennsylvania, State College: DES.

University of Pittsburgh, Pittsburgh: Galaxienentstehung.

University of Texas, Austin: Galaxienentstehung; HETDEX, CAS-Theory.

University of Texas, San Antonio: SBNAF.

University of Toledo, Toledo: Galaxienentstehung; CAS-Observations.

University of Virginia, Charlottesville: CAS-Theory; CAS-Observations.

University of Wisconsin-Madison, Madison: CAS-Theory.

Yale University, New Haven: CAS-Observations.

6.2 Multinationale Kooperationen

ARGOS - Laserleitstern für das LBT: Arcetri Observatory, Italy; AIP, LSW Heidelberg, MPiA, MPIfR, Germany; University of Arizona, USA.

ASPI - The International Wave Consortium: CNR-IFSI Frascati, Italy; LPCE/CNRS Orleans, France; Dept. of Automatic Control and Systems University of Sheffi eld, UK.

ATHENA - Advanced Telescope for High Energy Astrophysics: Dänemarks Technische Universität, Dänemark; Nikolaus Kopernikus Astronomical Center, Polen; Universität Wien, Österreich; IWF, Graz; INAF Italy, Italy; CEA Frankreich, Frankreich; University of Leicester, Open University, UK; Institut für Astronomie und Astrophysik Tübingen, Erlangen Centre for Astroparticle Physics (ECAP), Germany; ESA; NOA, Greece; Universität Geneva, Schweiz; Institute for Astrophysics, Portugal; Stanford University, USA.

BOSS - Baryon Oscillation Spectroscopic Survey: SDSSIV Collaboration.

Chandra: Marshall Space Flight Center Huntsville, Massachusetts Institute of Technology Cambridge, Smithsonian Astrophysical Observatory Cambridge, USA; Space Research Institute Utrecht, The Netherlands; Universität Hamburg, Germany.

COSMOS - Cosmological Evolution Survey: INAF-Osservatorio Astronomico di Bologna, INAF-Osservatorio Astronomico di Roma, INAF-Osservatorio Astrofisico di Arcetri, INAF/IASF-CNR, Sezione di Milano, IRA-INAF, Bologna, Dipartimento di Astronomia, Universita Padova, Dipartimento di Fisica, Universita degli Studi Roma Tre, Italy; Harvard-Smithsonian Centre for Astrophysics, Cambridge, Dept. of Physics, Carnegie Mellon University, Pittsburg, Institute for Astronomy, University of Hawaii, California Institute of Technology, Pasadena, Dept. of Astronomy, Yale University, USA; INTEGRAL Science Data Centre, Versoix, Switzerland; Laboratoire d'Astrophysique de Marseille, France.

DES - Dark Energy Survey: LMU München, Excellence Cluster Universe, Germany; The Fermi National Accelerator Laboratory (Fermilab), University of Chicago, NOAO, University of Michigan, University of Pennsylvania, University of Illinois at Urbana-

Champaign, Ohio State University, Texas AM University, University of California Santa Cruz, Stanford University, SLAC National Accelerator Laboratory, The Lawrence Berkeley National Laboratory, Argonne National Laboratory, USA; University College London, University of Cambridge, University of Edinburgh, University of Portsmouth, University of Sussex, University of Nottingham, UK; Observatorio Nacional, Centro Brasileiro des Pesquisas Fisicas, Universidade Federal do Rio, Brasilien; Instituto de Ciencias dei Espacio, Institut de Fisica d'Altes Energies, Centro de Investigaciones Energeticas Medioambientales y Tecnologicas, Spain.

eBOSS - SDSS-IV Extended Baryon Oscillation Spectroscopic Survey: Carnegie Mellon University (CMU), University of Colorado Boulder,

Harvard-Smithsonian Center for Astrophysics Participation Group, Johns Hopkins University, Kavli Institute for the Physics and Mathematics of the Universe, New Mexico State University, New York University, The Ohio State University, Penn State University, University of Utah, University of Wisconsin, Yale University, USA; Max-Planck-Institut fuer Astrophysik (MPA Garching), Max-Planck-Institut für extraterrestrische Physik (MPE), Max-Planck-Institut für Astronomie (MPIA Heidelberg), Germany; National Astronomical Observatories of China, Shanghai Astronomical Observatory, China; United Kingdom Participation Group, University of Portsmouth, UK.

ERIS - Enhanced Resolution Imager and Spectrograph for the VLT: ESO, Germany; ETH Zürich, Switzerland; INAF Arcetri (with OAA, OATe and OAPd), Italy; UKATC Edinburgh, Scotland; NOVA Leiden, The Netherlands.

EinsteinProbe: Chinese Acadamy of Science, Institute of High Energy Physics, National Astronomical Observatories, China, ESA.

eROSITA - extended Roentgen Survey with an Imaging Telescope Array: AIP Potsdam, Universität Tübingen, Universität Bonn, Universität Erlangen, Universität Hamburg, Remeis-Sternwarte Bamberg, MPA Garching, LMU (USM) München, Germany; IKI Moskau, Russia.

ESBO-DS - European Stratospheric Balloon Observatory – Design Study, EU H2020 project; University of Stuttgart, University of Tübingen, Germany; Swedish Space Corporation, Sweden; Instituto de Astrofísica de Andalucía, Spain.

EUCLID - ESA Mission to map the Dark Energy: ESA; CEA Saclay, LAM, France; University Bologna, INAF, Italy; MSSL, Durham University, UKATC UK; STScI, USA; MPIA Heidelberg, Universität Bonn, Germany.

Fermi/GBM - Fermi Gamma-Ray Burst Monitor: Marshall Space Flight Center Huntsville, University of Huntsville, USA.

Fermi/LAT - Fermi Gamma-Ray Large Area Space Telescope: Stanford University Palo Alto, Naval Research Laboratory Washington DC, Sonoma State University Rohnert Park, Lockheed Martin Corporation Palo Alto, University of California Santa Cruz, University of Chicago, University of Maryland Greenbelt, NASA Ames Research Center Moffett Field, NASA Goddard Space Flight Center for High Energy Astrophysics Greenbelt, Boston University, University of Utah Salt Lake City, University of Washington Seattle, SLAC Particle Astrophysics Group Palo Alto, USA; ICTP and INFN Trieste, Instituto Nacionale di Fisica Nucleare Trieste, Italy; University of Tokyo, Japan; CEA Saclay, France.

GRAVITY - Instrument for VLT Interferometry: MPIA Heidelberg, Universität Köln, ESO Garching, Germany; CENTRA Lisbon and Porto, Portugal; IPAG Grenoble, Observatoire de Paris / Meudon (LESIA), France.

GRAVITY+ - VLT Interferometry upgrade project: MPIA Heidelberg, Universität Köln, ESO Garching, Germany; CENTRA Lisbon and Porto, Portugal; IPAG Grenoble, Observatoire de Paris / Meudon (LESIA), OCA Nice, CRAL Lyon, France; University of Southampton, UK; KU Leuven, Belgium.

HETDEX - Hobby-Eberly Telescope Dark Energy Experiment: University of Texas, Austin, Pennsylvania State University, Texas AandM University, USA; AIP Potsdam, LMU, USM, Germany.

INODE - Intelligent Open Data Exploration: Zürcher Hochschule für Angewandte Wissenschaften, Athena RC, Research and Innovation Center in Information, Communication and Knowledge Technologies, Fraunhofer Institute for Computer Graphics Research IGD, Infili Technologies Private Company, Center National de la Recherche Scientifique, SIRIS Academic SL, Swiss Institute of Bioinformatics, Free University of Bozen-Bolzano.

INTAS - Cooperation of Western and Eastern European Scientists: France, Germany, Norway, Russia.

ISDC - INTEGRAL Science Data Centre: Observatoire de Geneva Sauverny, Switzerland; Service d'Astrophysique Centre d'Etudes de Saclay, France; Rutherford Appleton Laboratory Oxon Dept. of Physics University Southampton, UK; Institut für Astronomie und Astrophysik Tübingen Germany; Danish Space Research Institute Lyngby, Denmark; University College Dublin, Ireland; Istituto di Fisica Milano, Instituto die Astrofi sica Spatiale Frascati, Italy; N. Copernikus Astronomical Center Warsaw, oland; Space Research Institute of the Russian Academy of Sciences Moscow, Russia; Laboratory for High Energy Astrophysics GSFC Greenbelt, USA.

INTEGRAL-Spectrometer SPI: Centre d'Etude Spatial des Rayonnements (CESR) Toulouse, CEA Saclay Gif-surYvette, France; University de Valencia Burjassot, Spain.

LBT - Large Binocular Telescope Project: MPIA Heidelberg, MPIfR Bonn, Landessternwarte Heidelberg Königstuhl, AIP, Germany; University of Arizona, Tucson, Ohio State University, Columbus, Research Corporation, USA; INAF, Italy.

MICADO - Multi-Adaptive Optics Imaging Camera for Deep Observations: ESO, LMU (USM), MPIA Heidelberg, IAG Göttingen, Germany; INAF-OAPD Padova, INAF-OAR Roma, Italy; A* (an Austrian partnership comprising the University of Vienna, the University of Innsbruck, the University of Graz, and the University of Linz [with RICAM Linz]; specific contributions to MICADO come from Vienna/Innsbruck/Linz), Austria; NOVA (a federation several astronomical institutes; specifi c contributions to MICADO come from the University of Groningen, the University of Leiden, and the NOVA optical/infrared instrumentation group based at ASTRON in Dwingeloo), The Netherlands; CNRS/INSU (representing LESIA and GEPI, Paris, IPAG, Grenoble and UTINAM, Besançon), France; FINCA (University of Turku) Turku, Finland.

MXT - Microchannel X-Ray Telescope for Gamma-Ray Bursts: CEA, Saclay, France; University of Leicester, UK.

OPTIMA: AIP, MPI für Astrophysik, Universität Hamburg, Germany; University of Crete, Greece; University Zielona Gora, Poland; University Lund/ Observatory, Schweden.

PanSTARRS - Panoramic Survey Telescope and Rapid Response System: MPIA Heidelberg, Germany, University of Hawaii, Harvard University, Johns Hopkins Univ. Baltimore, MD, USA; Universities of Durham, Edinburgh, Belfast, UK.

PFS - The Subaru Prime Focus Spectrograph Collaboration: Kavli Insitute for the Physics and Mathematics of the Universe, California Institute of Technology, NASA Jet Propulsion Laboratory, Princeton University, Johns Hopkins University, USA; The University of Tokyo Institutes for Advanced Study (UTIAS), University of Tokyo, National Astronomical Observatory of Japan, Academia Sinica, Japan; Institute of Astronomy and Astrophysics (ASIAA), Taiwan; Laboratoire d'Astrophysique de Marseille, France; Brazilian Consortium: IAG Universidad de Sao Paolo, Laboratorio Nacional de Astrofisica, Brazil; Max Planck Society, Max-Planck-Institut für Astrophysik (MPA, Garching), Max-Planck-Institut für extraterrestrische Physik (MPE), Germany; Chinese Consortium: Shanghai Jiao Tong University, National Astonomical Observatories of China, Tsinghua University, The University of Science and Technology of China, Xiamen University, Peking

University, China.

SBNAF - Small Bodies Near and Far, EU H2020 project; Poznań, Poland; Instituto de Astrofísica de Andalucía, Granada, Instituto de Astrofísica de Canarias (IAC), Spain; Konkoly Observatory, Budapest, Hungary; Institute of Space and Astronautical Science (ISAS, JAXA), Kanagawa, Japan.

SDSS - Sloan Digital Sky Survey: MPA Garching, MPIA Heidelberg, Germany; Univ. of Washington, Seattle, Fermi National Accelerator Laboratory, Batavia, University of Michigan, Ann Arbor, Carnegie Mellon University, Pittsburgh, Penn State University, University Park, Princeton University Observatory, Princeton, Institute of Advanced Study Princeton, Space Telescope Science Institute, Baltimore, Johns Hopkins Univ. Baltimore, USA.

Swift - Gamma-Ray Burst Mission: NASA/GSFC Greenbelt, Penn State University, USA; University of Leicester, Mullard Space Science Laboratory London, UK; Osservatorio Astronomico Brera, Italy.

XMM-Newton/SSC Survey Science Center: AIP, Germany; SAP Saclay, CDS Strasbourg, CESR Toulouse, France; University of Leicester, Institute of Astronomy Cambridge, MSSL London, UK.

XMM-Newton/EPIC (European Photo Imaging Camera): SAP Saclay IAS Orsay, CESR Toulouse, France; University of Leicester, University Birmingham, UK; CNR MailandPalermo-Bologna-Frascati, Osservatorio Astronomico Mailand, Italy; Institut für Astronomie und Astrophysik Tübingen, Germany.

6.3 Industrielle Kollaborationen

3d shape GmbH, Erlangen: Metrology for slumped glass mirror study.

ABN GmbH, Neuried: Ongoing servicing of the MPE test facility PANTER.

AC Tech GmbH, Freiberg: ERIS Konus.

ACM GmbH, Naumburg - Acktar Ltd., Kiryat-Gat, Israel: Schwärzen für EUCLID und ERIS.

af inventions, Braunschweig: FPGA Programmierung für eROSITA.

ALPAO, Montbonnot-Saint-Martin, France: GRAVITY+ deformable mirrors.

Alwin Müller GmbH and Co. KG, Nürnberg: Oberflächenbeschichtung vieler Projekte.

Ariane Group GmbH, Munich: EUCLID design study, eROSITA, ATHENA, Oberflächenbeschichtung und cleanliness control EinsteinProbe.

Array Electronics, Egmating: DAQ development OPTIMA.

Bach Research, Boulder, USA: High resolution grating for ERIS.

BASF Coatings AG, Münster: Investigations on the scattering properties of micro particles.

Bräuninger und Konstruktionen, Neuried: Construction and manufacturing of laboratory equipment.

Buchberger GmbH, Tuchenbach: Manufacturing of parts for PANTER manipulators, ERIS telescope flange.

Carl Zeiss QEC GmbH, Garching b. München, Deutschland: Messdienstleistungen, EinsteinProbe.

Christian Rehm - ISKON, Isen: Design and mechanical engineering for MICADO.

CryoVac GmbH, Troisdorf: MICADO Cryostat; ERIS SPIFFI Upgrade.

DHL Special services, Flughafen München: EinsteinProbe.

Dico-Solutions, München: eROSITA Betrieb.

DoKaSch TEMPERATURE SOLUTIONS GmbH, Kelsterbach: klimatisierte Frachtcontainer, EinsteinProbe.

ECM Engineered Ceramic Materials GmbH, Moosinning: Hersteller von CESIC.

EATON Powering Business Worldwide, Camarillo, CA, USA: Actuators separationnuts for eROSITA.

ESL GmbH, Berlin: Manufacturing of circuit boards.

First Light Imaging, Meyreuil, France: GRAVITY+ wavefront sensor cameras.

Fraunhofer IOF, Jena: Mirror development for MICADO.

Freyer GmbH, Tuningen: PANTER.

Frühschütz Lohngalvanik GmbH, Penzberg: Oberflächenbeschichtung vieler Projekte.

GEWO Feinmechanik GmbH, Wörth/Hörlkofen: Mechanische Fertigung, ERIS.

Gräfe Spezialoptik GmbH, Camburg: Zerodur-Materialbearbeitung und -Lieferant.

Hans Englert GmbH, Berlin: Manufacturing of front panels and metering devices.

Hembach Photonik, Rednitzhembach, Optical Design, GRAVITY+.

HERMLE AG, Gosheim: Milling Machines, MPE Workshop.

Hochschule München, Laserlabor, Prof. Heinz Huber, München: Materialbearbeitung mit Ultrakurzpulsarlaser.

Hyprostatik, Göppingen: MICADO Hydrostatik.

Industrieanlagen – Betriebsgesellschaft mbH (IABG), Ottobrunn: Testanlagen, Luftfahrtsicherheit, EinsteinProbe.

Industrieberatung Reinhard Katterloher, München: Specifications for MICADO Test Cryostat.

Ingenieurbüro Josef Eder, Hilgertshausen: System engineering for eROSITA, ATHENA, ERIS, Einstein Probe.

Ingenieurbüro Weisz, München: Design and mechanical engineering for ERIS and MICADO.

Ingenieurbüro Michael Kautz, Regensburg, Design and mechanical engineering for CAS.

IRIDIAN Spectral Technologies, Ottawa, Ontario, Canada: ERIS Filters.

Kampf Telescope Optics (KTO), München: Design und System Engineering for MICADO.

Korth Kristalle GmbH, Kiel: Lenses and windows for ERIS Spectrometer.

Kinkele GmbH und Co. KG, Ochsenfurt: ERIS Struktur.

LaserJob GmbH, Fürstenfeldbruck: Präzisions-Laserzuschnitt und Schweißen EinsteinProbe.

LEX GmbH, Miesbach, Deutschland: Mechanische Fertigung, ATHENA, EinsteinProbe.

LT Ultra, Herdwangen-Schönach: Spiegelhersteller.

Feinmechanische Werkstätte Thomas Markl GmbH, Deisenhofen: eROSITA.

Medway Optics Ltd, Rainham, Kent, UK: Optical coatings for ERIS.

M-Industrieverpackung GmbH, Sulzemoos: ERIS Transportcontainer.

OHB System AG, München: EUCLID design study.

Peter Blank GmbH, Aschaffenburg: Mechanische Fertigung MICADO.

Peter Feckl Maschinenbau GmbH, Forstern: Mechanische Fertigung, ERIS, Spiegelmodule EinsteinProbe.

Plappert Industrieanlagen GmbH, Schorndorf: Design and mechanical engineering for MICADO Handling Tools.

Plasmatechnik Reusche, Jettingen-Scheppach: verzugsfreies Randschichthärten für ERIS.

Qioptic GmbH, Feldkirchen: Oberflächenbeschichtung vieler Projekte.

Steinmeyer Mechatronik, Dresden: GRAVITY+ translational stages.

Tafelmaier Dünnschicht-Technik, Rosenheim: Optical Coatings, GRAVITY+.

Unholtz-Dickie Corp., Wallingford, USA: Shaker System, MPE Test Facility.

7 Öffentlichkeitsarbeit

Das MPE engagierte sich 2021 durch folgende Aktivitäten in der Öffentlichkeitsarbeit: 33, zum Teil online gehaltene populär-wissenschaftliche Vorträge durch Wissenschaftler, sowie 21 Pressemitteilungen über wissenschaftliche Ergebnisse und allgemeine Nachrichten (wissenschaftliche Preise, Auszeichnungen). Aktivitäten am Institut waren aufgrund der Covid19-Pandemie stark eingeschränkt. Institutsführungen entfielen komplett, und auch Praktika konnten nur wenige stattfinden: Insgesamt wurden im Jahr 2021 neun Praktikanten betreut, davon drei Schülerpraktikanten. Ferner arbeiteten 14 Werkstudenten am MPE. Der Girlsday 2021 wurde online abgehalten und bestand aus mehreren Vorträgen, einer vorher aufgezeichneten Laborführung sowie einem Livestream aus der Werkstatt. Insgesamt nahmen 50 Schülerinnen teil. Seit Juni 2021 betreibt das MPE einen eigenen Twitteraccount (@MPE-Garching). Zum Stichtag 31.12.2021 wies der Account 760 Follower auf und setzte 322 Tweets bzw. Re-Tweets ab. Auch der Account auf LinkedIn (MPEGarching) wurde 2021 intensiver betreut, hier hatte das MPE bis Ende des Jahres 1518 Follower angesammelt. Weitere Informationen zur Öffentlichkeitsarbeit sind unter: http://www.mpe.mpg.de zu finden.

Paola Caselli