IAU Executive Committee

President
Franco Pacini
Dpto di Astronomia
Universitá degli Studi
Largo E. Fermi 5
IT 50125 Firenze
Italy
Tel: 39 055 27 52232
Fax: 39 055 22 0039
pacini@arcetri.astro.it

President-Elect
Ronald D. Ekers
CSIRO, ATNF
Box 76
AU Epping NSW 1710
Australia
Tel: 61 2 9372 4300
Fax: 61 2 9372 4310
ron.ekers@atnf.csiro.au

General Secretary
Hans Rickman
IAU
98 bis Blvd Arago
FR 75014 Paris
France
Tel: 33 1 43 25 8358
Fax: 33 1 43 25 2616
hans@iap.fr

Home Institute
Astronomical Observatory
Box 515
SE 751 20 Uppsala
Sweden
Tel: 46 18 471 5971
Fax: 46 18 471 5999
hans@astro.uu.se

Assistant General Secretary
Oddbjorn Engvold
Inst. Theor. Astrophysics
University of Oslo
Box 1029
NO 0315 Blindern
Oslo 3
Norway
Tel: 47 22 856 521
Fax: 47 22 856 505
oddbjorn.engvold@astro.uio.no

Vice-Presidents
Catherine J. Cesarsky
Director General, ESO
Karl Schwarzschildstr. 2
DE 85748 Garching
Germany
Tel: 49 893 200 6227
Fax: 49 893 202 362
ccesarsk@eso.org

Norio Kafu
Director General, NAOJ
2 21 1 Osawa, Mitaka
JP Tokyo 181- 8588
Japan
Tel: 81 422 34 3650
Fax: 81 422 34 3690
kafu@nao.ac.jp

Nikolay S. Kardashev
Astro Space Center
Lebedev Physical Institute
Academy of Sciences
Profsoyuznaya ul 84/32
RU 117810 Moscow
Russian Federation
Tel: 7 095 333 2378
Fax: 7 095 333 2378
or 7 095 310 7023
nkardashev@asc.rssi.ru

Kenneth A. Pounds
Dpt Physics/Astronomy
University of Leicester
University Rd
GB Leicester LE1 7RH
UK
Tel: 44 116 252 3509
Fax: 44 116 252 3311
kap@star.le.ac.uk

Silvia Torres-Pélmert
Instituto Astronomia
UNAM
Apt 70 264
Mexico DF 04510
Mexico
Tel: 52 5 622 3906
Fax: 52 5 616 0653
silvia@astroscu.unam.mx

Advisers
Robert P. Kraft
(Past President)
Lick Observatory
University of California
US Santa Cruz CA 95064
USA
Fax: 1 831 426 3115
kraft@ucolick.org

Johannes Andersen
(Past General Secretary)
Astronomical Observatory
NBIfAFG
Copenhagen University
Juliane Maries Vej 30
DK 2100 Copenhagen, Denmark
Tel: 45 35 32 5934
Fax: 45 35 32 5989
jag@astro.ku.dk
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On 18 January 2003, a bush fire swept across Mt Stromlo and devastated one of the Southern Hemisphere’s most famous observatories. We were all deeply saddened by this disaster, and we felt sympathy with our Australian colleagues, who were in the midst of their great effort to prepare for the Sydney General Assembly.

Nonetheless, the work of organizing the scientific events of GA XXV has been proceeding admirably, and as the programs are shaping up, one gets more and more thrilled and excited. I really wish I could enjoy the GA without the administrative burdens of the Executive business! I am also grateful for the hard work of the LOC, and for the financial contributions from NASA, ESO and various national funding agencies that bring vital help to get a large number of us together.

This is the last issue of the Information Bulletin that is produced under my responsibility, and it is also the last issue that will be distributed by regular mail as a printed booklet to all IAU Members. Starting from the next issue, IB 94 in January 2004, the default option will be to download the Bulletin as a pdf file via the IAU web page. Mailings will be done only to those who are without Internet access, and the status of our membership in different countries in this respect will be investigated. A prerequisite for this new scheme is an efficient system of email communication with the individual IAU Members. As I have written before, we are working on establishing a database of email addresses, which covers as large a percentage of the membership as possible and can be used as input to a mass emailing program. The work is not finished yet. Our efforts have so far concentrated on email lists of Commissions and a few major Member countries via their national astronomical societies, and we will continue with other countries and additional search tools. An attempt was made on 16 April to send a mail with information on the XXVth General Assembly to some 5200 Members, and this exercise was also useful as a test and a check on the quality of the current database.

Keeping the database of addresses and contact information of the individual Members up to date is an essential but everlasting task that bears resemblance to the work of Sisyphus, especially as the number of Members as well as their mobility keep increasing but not the staffing of the IAU Secretariat. If this is the time to count my failures as General Secretary, I think an outstanding one is the fact that the Paris Office today has neither more persons employed nor significantly better work equipment than it had three years ago. I know that it is frustrating to send us address changes and find out that it takes time before they become visible, but I ask for your understanding and hope for more input, especially if we seem to have got your email address wrong.

As my time as GS is winding up, I want to thank my fellow Officers and EC members as well as the Division Presidents for having provided me with both efficient support and a friendly atmosphere that I shall certainly miss. The unfailing, hard and devoted work of my colleagues at the Secretariat, first of all Monique Léger-Orine, who for an extended time carried the heavy burden of coping with all the work on her own, and by her side Jodi Greenberg, Estelle Denos and during recent months Estelle’s successor Claire Vidonne, has proved to be the heart of the matter for the running of the Union, and is something for which I am immensely grateful. Last but not least, our webmasters - first Johan Lagerros and then Marcus Gunnarsson - have provided kind and very competent service for improving our important Internet facilities.

Hans Rickman, General Secretary
1. FAITS DIVERS

Some aspects of life as IAU General Secretary and at the Secretariat are quite predictable. One of these is that, as the General Assembly draws nearer, the amount of work increases sharply. This year is no exception. We have finished the work on the IAU Transactions vol. XXV A, which contains the reports of Divisions, Commissions and Working Groups for the previous triennium, and the book will be available from the ASP in time before GA XXV. Grant notification letters for attending the GA have been sent to 362 people in 54 countries.

We are now dealing with the preparation of the Program Booklet for the GA - quite an exciting task! - and keeping track of all the demands concerning Working Groups and Officers of Commissions and Divisions. With our local hosts we hope for numerous attendance, and we also hope that the stage will be properly set for all the administrative business at Sydney, so that the running of the Union continues smoothly into the next triennium.

Other events in astronomy are less predictable. This is almost self-evidently the case for most of the scientific discoveries. But no one could have foreseen the tragic loss of much of the ancient heritage of cuneiform tablets that bears witness of Mesopotamian astronomy, as the Baghdad archaeological museum was plundered at the fall of the Iraqi regime. This may prove to be a hard blow to historians of ancient astronomy, unless the sources of knowledge can be recovered.

One often hears about the Tunguska explosion in 1908 - a Mt class airburst - and what might have happened, had the impact occurred just a little earlier when densely populated areas of Europe could have been struck. Fortunately, history does not tell of any such disaster, but of course, smaller-scale impacts do occur everywhere. Last January, your General Secretary visited a very recent impact crater near Rome. This roundish lake - only 150 m across - is situated on a plain near the Sirente Massif in the Apennine Mountains and is a famous tourist landmark. But it has now been shown that the depression hosting the lake was formed as a huge meteorite (certainly an iron meteorite) fell some time in the 5th Century A.D. The fireball should have been plainly visible from Rome, and the impact cannot have passed unnoticed. One cannot help wondering how the citizens of Rome perceived this extraordinary event, and if it gave any echo around the whole Empire. However, nothing is known about this yet. Legends and ancient rumors, yes, but solid evidence, no!

Asking such a question is not just for simple curiosity. Similar impacts, or even harsher ones, may well occur during the 21st Century, and it is open to question, if our society is prepared for this eventuality in any serious way. The IAU is preparing to contribute to a study of this problem with all the expertise that we can muster, the aim being to put the matter on the agendas of politicians and policy makers.
2. MAIN DEADLINES AND EVENTS 2003

2003

July
06-11 IAU Colloquium 193, Christchurch, New Zealand
11 End of pre-registration GA XXV
13 Start of on-site registration GA XXV
13-26 XXVth IAU General Assembly, Sydney, Australia
13-24 77th EC Meeting, Sydney, Australia
14-17 IAU Symposium 216, Sydney, Australia
14-17 IAU Symposium 217, Sydney, Australia
14-17 IAU Symposium 218, Sydney, Australia
21-25 IAU Symposium 219, Sydney, Australia
21-25 IAU Symposium 220, Sydney, Australia
22-25 IAU Symposium 221, Sydney, Australia
25-26 78th EC Meeting, Sydney, Australia

Aug. 31 Nominations due for Gruber Cosmology Prize 2004

Oct. 01 Manuscripts for Transactions XXVB due at Secretariat
15 Contributions due for IB 94 (January 2004)
15 Contributions to Highlights 13 due at Secretariat

Nov. 17-21 IAU Colloquium 194, La Paz, Mexico

Proposals for IAU Symposia, Colloquia, and co-sponsored meetings planned for 2005 must reach the Assistant General Secretary

See http://www.iau.org/IAU/Organization/officers.html

no later than February 15, 2004!

in order to be considered at the 79th Executive Committee meeting.

See http://www.iau.org/IAU/Activities/meetings/
3. SCIENTIFIC MEETINGS

3.1. FUTURE IAU SYMPOSIA
Symposium 216: Maps of the Cosmos
July 14-17, 2003, Sydney, Australia
See IB 91, p. 30, tinted pages

Symposium 217: Recycling Intergalactic & Interstellar Matter
July 14-17, 2003, Sydney, Australia
See IB 91, p. 30, tinted pages & IB 92, p. 30

Symposium 218: Young Neutron & their Environment
July 14-17, 2003, Sydney, Australia
See IB 91, p. 31, tinted pages

Symposium 219: Stars as Suns: Activity, Evolution & Planets
July 21-25, 2003, Sydney, Australia
See IB 91, p. 31, tinted pages

Symposium 220: Dark Matter in Galaxies
July 21-25, 2003, Sydney, Australia
See IB 91, p. 32, tinted pages & IB 92, p. 31

Symposium 221: Star Formation at High Angular Resolution
July 22-25, 2003, Sydney, Australia
See IB 91, p. 32, tinted pages

3.2. FUTURE IAU COLLOQUIA
Colloquium 193: Variable Stars in the Local Group
July 6-11, 2003, Christchurch, New Zealand
See IB 91, pp. 8-9

Colloquium 194: Compact Binaries in the Galaxy & Beyond
November 17-21, 2003, La Paz, Mexico
See IB 91, p. 9 & IB 92, p. 6

3.3. IAU GENERAL ASSEMBLIES
XXVth IAU General Assembly & associated Symposia
13-26 July, 2003, Sydney, Australia
Contact address: IAU Secretariat, 98bis, bd Arago FR 75014 Paris, France
Tel.: 33 1 43 25 8358 - Fax: 33 1 43 25 2616
Email: iau@iap.fr - http://www.astronomy2003.com/

XXVIth IAU General Assembly & associated Symposia
13-26 August, 2006, Prague, Czech R
Contact address: IAU Secretariat, 98bis, bd Arago FR 75014 Paris, France
Tel.: 33 1 43 25 8358 - Fax: 33 1 43 25 2616 - Email: iau@iap.fr
4. NEWS FROM DIVISIONS

4.1. DIVISION VIII: GALAXIES & THE UNIVERSE (Virginia L. Trimble)
Division VIII intends to recommend at Sydney the re-establishment of a Supernova Working Group (SNWG) and the establishment of a Working Group on Computational Astrophysics (WGCA). Organizational meetings will be held as part of the business meeting of the Division and of Commissions 28 and 47 on Monday, 21 July. If you are interested in participating in one of these, especially if you do not plan to be in Sydney, please contact the relevant chair pro tempore, Wolfgang Hillebrandt (wfh@mpa-garching.mpg.de) for the SNWG and Vincenzo Antonuccio-Delogu (van@sunct.ct.astro.it) for the WGCA.

If you are thinking of organizing a conference, see the need for a Working Group on some topic, or have other astronomical plans with which the Division might be able to help, please get in touch (vtrimble@astro.umd.edu).

4.2. DIVISION X: RADIO ASTRONOMY (Lucia Padrielli)
Commission 40 members were saddened by the death of Grote Reber on December 20, 2002, just a few days before his 91st birthday. Following Karl Jansky's 1932 detection of cosmic radio waves, Reber, working alone, and with his own resources, built and operated the world's first radio telescope in his backyard in Wheaton, Illinois. After several years of laborious design and construction of novel instrumentation followed by lengthy observations, he made the first radio map of the Milky Way and detected the first discrete radio sources as well as the intense radio emission from the Sun. Reber's pioneering work opened a new window on the Universe which later would lead to the detection of powerful radio galaxies, quasars, pulsars, cosmic masers, giant molecular clouds, gravitational lensing and gravitational radiation, the first extra-solar planetary system, and the cosmic microwave background.

Throughout his career, Reber worked alone designing and building his own antennas and receivers as well as the test equipment needed to work at previously unexplored wavelengths. He was driven by an intense curiosity which, combined with his experimental skills and uncanny insight, first demonstrated the power and importance of radio astronomy.

Text kindly supplied by Ken Kellerman
5. COMMISSION MATTERS

5.1. COMMISSION 6


A total of 259 IAU Circulars were issued in 2002, up from the 229 published in 2001. The most common topics covered were supernovae (whose discoveries appeared on 54 percent of the Circulars while at least one separately titled follow-up item on a supernova appeared on 46 percent of the year's IAUCs). Follow-up items involving novae and other unusual Galactic variable stars appeared on about a quarter of the year's Circulars. Comets continued in 2002 to have a standard presence in the CBAT publications (with non-spacecraft discoveries and recoveries appearing on 18 percent, SOHO discoveries on 17 percent, and follow-up information on comets appearing on a fifth of the 2002 Circulars). Eleven percent of the year's Circulars contained items on high-energy (TeV, γ-ray, and X-ray) transients, and four percent contained reports on radio transients. Over a dozen IAUCs during the year covered the discoveries and follow-up information for numerous satellites of both major and minor planets. Twelve new satellites of Jupiter and one of Uranus were announced in 2002.

There were 292 new extragalactic supernova discoveries made in 2002 that were reported on IAUCs that year (nearly fifty more than the record number that were announced the previous year). Also, 47 supernovae discovered prior to 2002 were designated and announced on Circulars in 2002. Some 158 supernovae announced during the year were fainter than mag 20 at discovery (roughly double the number for 2001), meaning that there were notably fewer discoveries of brighter supernovae. Spectroscopic observations (usually with a supernova type given) were reported on the year's IAUCs for more than 90 percent of supernova discoveries brighter than mag 20 - though for objects fainter than mag 20, spectroscopic typing dropped to around 40 percent (and 86 percent of apparent supernovae of mag 23 or fainter had no available spectroscopic information). There is thus some continuing question about the value of designating most objects fainter than mag 23 that cannot be confirmed as supernovae. The brightest supernova of the year was the peculiar type-Ic SN 2002ap in M 74, peaking at visual mag ~ 12 in early February, and numerous items reporting X-ray, optical, infrared, and radio observations appeared on the Circulars. SN 2002fk in NGC 1309 reached visual mag ~ 13 in September; a half dozen other supernovae peaked around mag 14-14.5 in 2002.

Some fifteen IAUCs carried discoveries of novae and outbursts of recurrent novae or novalike variables during 2002. A peculiar binary variable discovered at visual mag 10 by N.J. Brown in January, designated V838 Mon, was announced on the Circulars where its spectroscopic development and expanding light echo and shell were documented in some detail. In addition to V838 Mon, five novae were assigned permanent variable-star designations on IAUCs in 2002, in the continuing collaboration between the CBAT and IAU Commission 27 (via N.N. Samus). The brightest of these novae, V4743 Sgr, peaked near fifth magnitude in mid-September. An outburst (to mag 8) of the nova IM Nor was announced in January, its first since 1920.

In addition to the scores of new SOHO comets announced and designated during the year, some four dozen non-SOHO comets received new 2002 designations, including three recoveries and one rediscovery (C/2002 C1 = 153P/Ikeya-Zhang, which reached third magnitude in late March, being the first return of a comet observed by Hevelius in 1661). Comet 54P was found again after having been missed since 1985. Besides the visual discovery by Ikeya and Zhang, four other comets were discovered visually by amateur astronomers.
astronomers in 2002 and announced by the Bureau. In June, a Circular announced seven winners of the 2002 Edgar Wilson Award for amateur comet discoveries. Comet C/2000 WM₁, reached m₁ ~ 2.5 in late January 2002. Some Circulars during the year were devoted to the discovery of some 19 companions to comet 57P.

The number of paid subscribers to the printed edition of the IAU Circulars continued to fall, from 216 at the end of 2001 to 193 at the end of 2002. In addition, there were 38 free (complimentary or exchange) subscriptions to the printed IAUCs at the end of 2002. The printed IAUCs go to 77 addresses within North America and 154 outside of North America. There were 470 paid subscribers to the CBAT/MPC electronic service at the end of 2002, compared with 501 at the end of 2001.

A new feature implemented in December was the introduction of the Central Bureau Electronic Telegrams, or CBETs. The CBETs are e-mailed items intended for later publication on IAUCs, set up mainly to aid in the quick dissemination of urgent information when the Director is unavailable, so that others assisting in the running of the CBAT are freed from the additional effort needed to produce the TeX version of the Circulars. As in recent years, most of the Circulars in 2002 were prepared by the undersigned, with very helpful editorial backup by Director Emeritus B.G. Marsden (who prepared numerous Circulars during the year and helped to proofread and critique most of the rest prior to issuance). Minor Planet Center Associate Director Gareth Williams also helps to maintain the Bureau’s presence on the World Wide Web. At SAO, Muazzez Lohmiller has continued to handle the accounts, addressing of envelopes, and other administrative matters; Judy Terry has also handled numerous CBAT administrative matters. Dan Wooldridge continues, as he has for years, with the fine printing of the IAUC cards.

Daniel W. E. Green, Director of the Bureau

5.2. COMMISSION 20

Annual Report of the Minor Planet Center, 2002

The publication rate of the Minor Planet Center continued to rise in 2002, on the average by some 33 percent since 2001, with totals of 2992 printed Minor Planet Circulars (MPCs), 26 712 observation supplements (MPSs), 17 368 orbit supplements (MPOs) and 1603 Minor Planet Electronic Circulars (MPECs). A record 5 657 397 observations were published during the year (or in some cases entered from earlier published literature into the MPC files); this was only slightly less than the total number of observations in the files as recently as Oct. 2000, and it brings the current total to more than 16 million. As was the case during the two preceding years orbits for some 50 000 new minor planets were published, bringing the total in the MPC files at the end of 2002 to 208 572. By that time 52 224 had received permanent numbers, a record 19 495 having been added during the year. The month of November saw both the numberings surpass 50 000 and the number of those that have been named surpass 10 000. Following the assignment of the number (20000) in Jan. 2001 to Varuna, then the largest known transneptunian object - apart from Pluto and its satellite - the number (50000) was assigned in Nov. 2002 to the latest such object, Quaoar, which clearly takes the record size for a numbered object from (1) Ceres and appears to be somewhat larger than Pluto’s satellite.
Although the MPCs were issued in 11 monthly batches (with none in December), three of these were “mini-batches” that did not contain observations or orbits of minor planets. On these occasions the MPCs were instead followed up with a batch of MPSs within a few days anyway, and two other extra batches of MPSs also appeared, the point about these “midmonth” batches being that they do provide verified observations, but the extensive filing effort that is required, particularly when minor planets receive permanent numbers, is eliminated.

About half of the MPECs consist of the first announcements of new near-earth asteroids (NEAs), with their first observations, orbits and ephemerides. By volume, most of the MPECs are the “Daily Orbit Updates”, which were automatically issued on almost 350 days during the year (during the early-morning hours at the MPC); these include the orbit computations made at the MPC since the previous issue, as well as the additional observations received of NEAs. Although it was always the intention that some of the MPECs would provide information about comets, the number of cometary MPECs issued during 2002 increased to more than 400. The reason for this was the decision in February that verified observations of comets should routinely be published, essentially on a weekly basis (although the logistics sometimes mean a lapse of perhaps two weeks between these publications). In some cases, principally for the more recent discoveries, the cometary MPECs also include new orbital elements, and when perturbed (but entirely gravitational) orbital solutions are used for long-period comets, the opportunity has also been taken to provide the “original” and “future” (barycentric) values of the reciprocal of the semimajor axis.

The number of NEAs discovered during the year continued to rise, although the count of 485 did not represent as much of an increase over the 437 of 2001 as that had been an increase over the 2000 count. The 89 potentially hazardous asteroids discovered was a number fractionally larger than the 2001 count by the same 11 percent. The 176 centaurs and transneptunian objects discovered during the year brought the combined total to 775. MPECs announced twelve new outer satellites of Jupiter and one new outer satellite of Uranus (all but one having their discovery images in 2001), as well as second-opposition recoveries of six jovian satellites.

The number of subscribers to MPC publications and services continues to fall. The number of subscribers to the Computer Service the Minor Planet Center shares with the Central Bureau for Astronomical Telegrams was down to 470 at the end of 2002, while only 139 were receiving the printed MPCs. These were down from 501 and 154, respectively, at the end of 2001. Even the number of subscribers to the Extended Computer Service was down, from 73 to 70, whereas there had been a significant increase during 2001. A number of donations were received during the year, and the MPC would particularly like to thank A.C. Beresford (South Australia), R. Covington (North Carolina), R. Crawford (Arizona), M. Dawson (Luxembourg), D. Dixon (New Mexico), F.K. Edmondson (Indiana; the senior living former President of Commission 20), M. Griesser (Switzerland), P.A. Shugart (Texas), L.K. Sloan (California), B.L. Stevens (New Mexico), J. E. Sturm (New Jersey), S. Tashiro (New Mexico) and M. Trueblood (Arizona), as well as an anonymous donor, for their generosity. Some support from the U.S. National Aeronautics and Space Administration is also very much appreciated, as is the subvention from the IAU.
Most of the Center’s work on processing observations of minor planets and computing orbits during the year has been carried out by Associate Director Gareth Williams and by Tim Spahr, NEO Technical Specialist, the former also writing most of the MPC’s computer programs and serving as system manager. Most of the processing of data on comets, transneptunian objects and comets is by the undersigned, who also often works with the NEOs. From the beginning of December Spahr was on leave of absence, at which point Kyle Smalley became a contractor at the MPC. Although the MPC tries to maintain a 16/7 operation, this is simply not comfortably possible with only three people, but to employ a larger staff requires substantially more financial support than is available, some of which is also needed for the part-time employment of Muazzez Lohmiller, who continues to be responsible for mailing the MPCs and maintaining the subscriber accounts and address lists. Billy Duggan again oversaw the printing, collating and stapling of the MPCs in the SAO’s print shop. The volunteer efforts of many amateur astronomers, particularly with regard to follow-up observations of NEAs and comets, is also very much appreciated. In addition, Syuichi Nakano continues to liaise with many Japanese observers, and he and Andreas Doppler serve as Associates of the Minor Planet Center. Susan Russell has also again helped with much of the editing of the citations for new namings of minor planets.

Brian G. Marsden, Director of the Minor Planet Center

6. 77th & 78th MEETINGS OF THE EXECUTIVE COMMITTEE

These EC meetings will be held at Darling Harbour Convention Centre in Sydney in connection with GA XXV. The 77th meeting will start July 13 and continue until noon, July 15, with a final session in the morning of July 24. The 78th EC meeting will take place July 25 and July 26. As usual, the Division Presidents are invited to attend these meetings (outgoing DPs for EC77, incoming DPs for EC78).

In view of the need for a new IAU Publishing contract to become effective from the start of 2004, and the need for a thorough discussion of possible new initiatives in this regard, a special session of EC77 including also new members of EC78, but excluding the Division Presidents, will be held between the July 15 and July 24 sessions, in order to discuss this very issue.

7. THE XXVth GENERAL ASSEMBLY

Latest News - April 8, 2003

The National Organising Committee has begun the final stages of planning of the General Assembly, with an aim to make this meeting and its associated events a most memorable and scientifically rewarding experience for participants and guests. Some final comments about the organization are provided below. For further details, see the GA website at www.astronomy2003.com and the links from it to other important sites. The Committee hopes that the range of information included in the GA website has assisted astronomers in planning their trips to Sydney.

Because of increased security precautions, it will not be possible to have a Welcome Desk at Sydney’s international airport. However, we will provide a welcoming committee.
attired distinctively, to assist attendees on arrival. The GA will not provide transfers between the airport and hotels and university colleges. However, the welcoming committee will assist new arrivals in selecting transport best suited for their destinations. Approximate costs of transport to Sydney's central business district are: taxis (AUD 20-30), train link to Central Station (AUD 8-12), and airport shuttle bus (AUD 10-15). The bus runs from both the international and domestic terminals to various locations in the city, including Darling Harbour. Some of the recommended hotels provide airport shuttle services.

In general, posters will be displayed together in Exhibition Hall 5 of the Convention Centre. However, access of GA attendees to the Hall will not be possible until Tuesday July 15, and posters for the meetings on Monday July 14 will be displayed in the Convention Centre on that day, and moved to the Hall when it becomes available that evening. Further details will be available on the GA website. Some posters for small meetings may be displayed near the meeting rooms, although display in the Hall is recommended to enable maximum exposure. Space available for each poster will be 1.0 metres in width and 1.2 metres in height (i.e. large enough to accommodate A0-size posters in portrait orientation).

For oral presentations at the major meetings (Symposia, JDs and Special Sessions), projection facilities for both Powerpoint presentations and overhead transparencies will be provided. For the meetings in smaller rooms, overhead transparencies will be standard, but additional presentation facilities may be available if they have been requested in advance by the meeting Convenors.

The GA 'Dinner' will be held in the Banquet Hall of the Sydney Convention Centre on Thursday July 24. This will be more of a cultural experience than merely a formal meal. Participants will be able to wander around the Hall, sampling both Australian and Asian-Pacific cuisine ranging from barbeque style to stir-fried noodles, whilst being entertained by local performers and musicians.

As is traditional, a special daily newspaper will be published during the GA. This will be edited by Seth Shostak of the SETI Institute; Seth has had considerable experience with such publications. Helen Sim of the ATNF will be responsible for media liaison.

The GA website contains the most up-to-date information about the scientific meetings, times and room allocations. Meeting schedules are shown for the 6 Symposia, 21 Joint Discussions, 4 Special Sessions, various Working Groups, Commissions and IAU administration, Opening / Closing ceremonies, and other events.

An exhibition (‘Astro Expo’) will be held during the GA, and will include a four-day Public Exhibition on July 18-21. Many groups have signed up to provide what we expect to be an exceptional display of scientific expertise and products. The Expo will share Exhibition Hall 5 adjacent to the Convention Centre with a communal area for the GA attendees, containing areas for posters, café, coffee and seating area, Internet Café, 150-seat theatrette, and individual mail boxes and information notice boards.

A wide program of astronomical public events and other outreach activities across Australia is being finalized and will take place before, during and after the GA. These include Public Lectures by astronomers at the Convention Centre and elsewhere, a late-afternoon concert (with astronomy theme) at Darling Harbour, opportunity for spirited debate at a ‘Science in the Pub’ event, a Schools Day of astronomy talks to Australian school children, and a public viewing night at North Sydney. Consult the GA website for up-to-date information.
It has been assumed that many overseas astronomers will combine attendance at the GA with an Australian holiday, and will bring their families with them. To assist parents wanting to attend GA meetings, a Childcare program has been planned on the basis of requirements supplied on the registration forms.

Sydney's public transport system enables easy travel around the city and its environs. The GA website offers a large range of activities ranging from self-guided walks, guided tours and sight-seeing trips around Sydney and further afield. Extended pre- and post-GA tours include locations such as Tasmania, inland Australia, NSW observatories, Great Barrier Reef, Kakadu and Arnhemland. A tour desk at the Convention Centre will be staffed in the period July 13-25 and here additional tour information can be obtained and tours organised.

Regarding banking facilities, Australian banks are open during the periods 09:30-16:00 Monday-Thursday and 09:30-17:00 on Friday. They are not open during weekends and public holidays. Currency exchange facilities are also available at the airport and most major hotels. ATMs (Automatic Teller Machines) are widely available. Money can also be obtained from EFTPOS facilities used in some shops - in particular food supermarkets.

Associated Public Events (as of April 11):

- **May 1 onwards**: "Astronomy on the Go" tours to NSW regional areas
- **July 11**: Inaugural Allison-Levick public lecture by Dr David Malin ("From Darkroom to Digital: 25 years of Colour Photography at the AAO") at the Powerhouse Museum
- **July 12**: Public lecture by Dr Bryan Gaensler at the Powerhouse Museum
- **July 13**: Public lecture at Sydney Observatory (speaker to be confirmed); Conference ("Pushing the Limits") for amateur astronomers at Macquarie University
- **July 14**: Harley Wood lecture by Professor Paul Davies ("The State of the Universe") at the Conference Centre
- **July 16**: Science in the Pub ("Life, the Universe & Everything") at Harlequin Inn, Pyrmont
- **July 17**: Public forum on the risks to Earth from space rocks at the Conference Centre (speakers: A.W. Harris, A. Milani, D. Morrison)
- **July 18-21**: Public Astro Expo at Exhibition Hall 5 Darling Harbour (includes several talks by astronomers)
- **July 19**: Astronomy theme concert, Darling Harbour
- **July 20**: Public viewing night ("Festival of Astronomy") at North Sydney Oval; Public lecture by Dr Jill Tarter ("SETI: Science Fact, not Fiction") at the Riverside Theatre Parramatta
- **July 21**: Public lecture by Dr Robert Kirshner ("The Extravagant Universe - Exploding Stars, Dark Energy, & the Accelerating Cosmos") at the Conference Centre
- **July 24**: UNSW Schools Day at Darling Harbour
- **July 26**: Teachers Professional Day at the Powerhouse Museum
8. EDUCATIONAL ACTIVITIES

8.1. OVERVIEW
During this half year most of our activities went into preparing for GA 25. Commission 46 organizes Special Session 4, "Effective Teaching & Learning of Astronomy", under the chairmanship of John Percy, decided on its invited speakers and recommended recipients of travel support. The PG on Teaching for Astronomy Development tried to support an activity in Vietnam. The PG on Collaborative Programmes worked mainly with UN/COPUOS to support the activity of UNISPACE III Action Team 17 (Capacity Building), which is now considering how well we organize our Commission 46 to build astronomy education from lower to higher level. Commission 46 Newsletter No. 58 has been published and can be seen at [http://physics.open.ac.uk/IAU46](http://physics.open.ac.uk/IAU46).

Syuzo Isobe, President of Commission 46

8.2. PG ON PUBLIC EDUCATION AT THE TIME OF SOLAR ECLIPSES
The Program Group was very active this semi-year because of activities relating to the total solar eclipse of 4 December 2002. Totality was visible across southern Africa and south-central Australia, and partial phases were visible to the sides of the totality track. Our Program Group's Web site at [http://www.eclipses.info](http://www.eclipses.info) carried information about observing eclipses safely and had links to maps and other information. I was in Australia and gave numerous radio, television, and newspaper interviews about what the eclipse was, why it was interesting, and how to observe it safely. Many ignorant articles appeared that exaggerated eclipse hazards, and several of us - notably Fraser Farrell of the Astronomical Society of South Australia - did our best to provide accurate information.

Jay M. Pasachoff, Chairman of the Program Group

9. RELATIONS TO OTHER ORGANIZATIONS

9.1. ICSU
The IAU did not lead any application for an ICSU Grant in 2003 but acted as supporting applicant for several projects headed by other Organizations: an African Institute for Mathematical Sciences (IUTAM), a Women in Physics and Physical Science Network in Africa (IUPAP), Capacity-Building Workshops in Space Science (COSPAR), and an Online Dictionary of Natural History of Sciences Bibliographies and Archival Sources (IUHPS/DHS). See further § 9.4.

9.2. UN/COPUOS
The 40th session of the Scientific and Technical Subcommittee was held at the Vienna International Centre, 17-28 February 2003. The IAU was represented by the Presidents of Commissions 46 and 50, Syuzo Isobe and Jim Cohen, and the latter gave a presentation on IAU activities for radio frequency interference mitigation, reporting in particular on moves to establish international radio-quiet zones for ALMA and the SKA. A presentation on IAU involvement in Near Earth Object research was also given by former Commission 20 President Andrea Carusi.
9.3. COSPAR
A capacity-building workshop, co-sponsored by the IAU, was held at Udaipur, India, in January 2003, and the topic was X-ray astronomy like it had been for the preceding workshop at INPE in Brazil. The main organizer was Professor Peter Willmore, and the "staff" of the workshop (teachers and supervisors) were well known scientists from five countries. There were 28 "student" participants, mainly from South-East Asia. The workshop was perceived as highly successful.

9.4. NEO-RELATED ACTIVITIES
The study of Near Earth Objects (NEOs) is supported by the IAU since more than ten years through the WGNEO, which is run jointly by Divisions I and III. In recent years it has become a matter for the EC though still for the same reason, i.e., the impact hazard. This may be seen as an environmental problem in a broad sense, thus ranking among the most important intersections between astronomy and human society at large.

During the last 7-8 months the IAU has participated in two efforts aiming to bring the NEO impact hazard to the agendas of policy makers on national and international levels, not as a purely astronomical affair but from a multidisciplinary point of view. The OECD Global Science Forum (OECD GSF) took up a UK initiative and organized a workshop, held at Frascati, Italy, 20-22 January 2003, which led to a range of findings and conclusions about how the world should go ahead tackling the various aspects of the impact problem. The IAU participated in this, and among other things, it was encouraging to see the need for a proper international funding of the activities of the Minor Planet Center once more reiterated.

The second effort was invited by ICSU as a consequence of last year's IAU proposal for a multidisciplinary study of the impact hazard, and as a response to the need to develop the scientific basis of an assessment that politicians could use as a trigger of action. A planning meeting was thus held in Paris 22-23 April 2003 with participation by several ICSU bodies (IAU, IUGG, IUGS, COSPAR, SCOR, SCOPE, and the USA) as well as the OECD GSF. The aim was to jointly prepare the scientific case for a study of the consequences of NEO impacts on human society and how best to mitigate these damaging effects, in order to seek ICSU funding.

10. MEMBERSHIP

10.1. NATIONAL MEMBERSHIP
Nigeria and Serbia & Montenegro have applied for full membership in the IAU. These applications will be voted upon by the XXVth General Assembly. In addition, Romania and Tajikistan have decided to step up to full membership after nine years of associate membership.

10.2. INDIVIDUAL MEMBERS
On the background of unfortunate mistakes in the past, the Secretariat is applying rigorous procedures to confirm any reports received on the decease of IAU members, if at all possible through their Adhering Organizations. Nevertheless, two members whose deaths were reported in this IB 93 (paper version) kindly announced us that this information was in fact incorrect: Drs Petrov G.M. and Sakurai Takashi. We are most pleased to learn that all two are alive and healthy and look forward to a long and fruitful
continued cooperation with them, but do apologise most sincerely to them all for this mistake and for any inconvenience it may have caused them.

The General Secretary regrets to report the names of former and current IAU members whose death has been communicated to the Secretariat since the previous list published in IB 92:

Adolfsson Tord  
Blinov Nikolai S.  
Chavira Enrique  
Coutris Raymond A.J.  
Galperin Yuri I.  
Grubissich C.  
Herrera Miguel Angel  
Kosin Gennadij S.  
Marino Brian F.  
Moreno Hugo  
O’Mara Bernard J.  
Pekar Haim Leib  
Radoski Henry R.  
Rucinski Daniel  
Shcherbina-Samojlova Inna S.  
Svensson Roland  
Troche-Boggino A.E.  
von Hoerner Sebastian  
Wroblewski Herbert  
Anantharamaiah Kuduvalli R.  
Bratijchuk Matrona V.  
Clatti Franco  
Debrunner Hermann  
Giuricin Giuliano  
Hagen John P.  
Jensen Eberhart  
Kristenson Henrik  
Moiseev Ivan G.  
Mullaly Richard F.  
Otera Liisi  
Peniche Rosario  
Randic Leo  
Sadeh Dror  
Sims Kenneth P.  
Szafraniec Rozalia  
Tsimoumis Alexandros  
Vardanian Rafik A.  
Weimer Theophile P.F.  
Bendinelli Orazio  
Bretagnon Pierre  
Clemenson Carl Johan  
Doughty Noel A.  
Gradstajn Eli  
Hameen Anttila Karlie A.  
Konopleva Varvara P.  
Large Michael I.  
Molchanov Andrea P.  
Nesterov Nikolai S.  
Papagiannis Michael D.  
Polymilis Chronis  
Reber Grote*  
Servan Bernard  
Subotowicz Mieczyslaw P.R.  
Tanzi Enrico G.  
van Houten C.J.  
Vergnano A.  
Wiyanto Paulus  

* See § 4.2.

11. FINANCIAL INFORMATION

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### TRIENNIUM 2000-2002

#### STATEMENT OF EXPENDITURE (CHF)

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Excess of income over Expenditure: 

- 5,209
- 252,885
- 162,547
- 164,755
- 255,093
12. ANNOUNCEMENTS

12.1. PGF COSMOLOGY PRIZE 2002
The 2002 Cosmology Prize of the Peter Gruber Foundation was awarded to Vera C. Rubin, the famous observational astronomer who has devoted her career to the study of motions of gas and stars in galaxies and the motions of galaxies in the Universe. Dr. Rubin is a Senior Fellow at the Department of Terrestrial Magnetism of the Carnegie Institution of Washington, where she has been a staff member since the mid-60’s. The Prize, including a cash sum of USD 150,000, was awarded at a ceremony in the gardens of the Carnegie Observatories in Pasadena, California, on November 18, 2002.

12.2. PGF COSMOLOGY PRIZE 2003
The 2003 Cosmology Prize of the Peter Gruber Foundation will be awarded to Rashid Sunyaev during the opening ceremony of the 25th IAU General Assembly, in the famous Sydney Opera House in the evening of Tuesday 15 July 2003. Prof. Sunyaev’s great achievements in the study of the Universe need no introduction, and the events to take place in Sydney related to his Prize award will certainly be both fascinating and memorable.

12.3. PGF COSMOLOGY PRIZE 2004
Nominations for the 2004 PGF Cosmology Prize are hereby invited. These may be submitted by individuals, organizations and institutions, comprising individual IAU Members and astronomical institutions. For this purpose a nomination form, available via [http://www.iau.org/Activities/cosprize.html](http://www.iau.org/Activities/cosprize.html), should be used. The deadline for receipt at the PGF Office is August 31, 2003.

Nominators should also include a concise letter of motivation and brief description of the nominee’s achievements in addition to the required data in the form.

12.4. ASTROBIOLOGY JOURNAL
Cambridge University Press is pleased to inform IB readers about their recent, major journal "International Journal of Astrobiology". Astrobiology combines the sciences of biology, chemistry, palaeontology, geology, atmospheric physics, planetary science, astrophysics and cosmology in the study of the origin, evolution and distribution of life in the Universe. The International Journal of Astrobiology is a new journal which acts as an important forum for practitioners in this rapidly expanding field. Coverage includes cosmic prebiotic chemistry, planetary evolution, the search for planetary systems and habitable zones, extremophile biology and experimental simulation of extraterrestrial environments, life detection in our solar system and beyond, intelligent life and societal aspects of astrobiology.
13. IAU PUBLICATIONS

13.1. IAU TRANSACTIONS (Astrophysical Society of Pacific)
Transactions of the IAU Vol. XXVA
Reports on Astronomy 1999 - 2002
Ed. Hans Rickman

13.2. IAU SYMPOSIA (Astrophysical Society of Pacific)
199 The Universe at Low Radio Frequencies
Pune, India, Nov. 30-Dec. 4, 1999
Eds. A. Pramesh Rao, G. Swarup & Gopal-Krishna
206 Cosmic Masers: From Protostars to Blackholes
Rio de Janeiro, Brazil, March 5-10, 2001
Eds. V. Migneses & M.J. Reid
212 A Massive Star Odyssey: From Main Sequence to Supernova
Costa Teguise, Lanzarote, Canary Islands, June 24-28, 2002
Eds. K.A. van der Hucht, A. Herrero & C. Esteban

13.3. IAU COLLOQUIA
184 AGN Surveys
Eds. R.F. Green, E.Ye. Khachikian & D.B. Sanders, ASP Conference Series,
187 Exotic Stars as Challenges to Evolution
Miami, USA, March 4-8, 2002

13.4. IAU REGIONAL MEETING
8th Asian-Pacific Regional Meeting, Vol. II
Eds. S. Ikeuchi, J. Hearnshaw & T. Hanawa
Astronomical Society of Japan, 2002
14. OTHER PUBLICATIONS RECEIVED

ASP Conference Series, San Francisco, CA, USA
http://www.astrosociety.org/pubs/cs/confseries.html

274 Observed HR Diagrams & Stellar Evolution: The Interplay Between Observational Constraints & Theory

276 Seeing Through The Dust: The Detection of H i & The Exploration of The ISM in Galaxies

277 Stellar Coronae in The Chandra & XMM-Newton Era

278 NAIC-NRAO School on Single-Dish Astronomy: Techniques & Applications

280 Next Generation Wide-Field Multi-Object Spectroscopy

281 Astronomical Data Analysis Software & System XI

282 Galaxies: The Third Dimension

283 A New Era in Cosmology

285 Modes of Star Formation & The Origin of Field Populations

286 Current Theoritical Models & High Resolution Solar Observations: Preparing for ATST

288 Stellar Atmosphere Modeling

World Scientific
http://www.worldscientific.com/

Cosmological Special Relativity: The Large-Scale Structure of Space, Time & Velocity (Second Edition),
Ed. M. Carmeli, ISBN 981 02 4936 5

Discovery of Cosmic Fractals

TITAN: The Earth-Like Moon

A Quest for Perspectives-Selected Works of S. Chandrasekhar,
With Commentary (2 Volumes)

Astronomical Data Analysis Software & System XI
15. OTHER MEETINGS ON ASTRONOMICAL TOPICS

TUG 2003, 25th Anniversary of TeX
July 20-24, 2003, Outrigger, Waikaloa, Hawaii, USA
Contact: Robin Laakso, TeX Users Group, 1466 NW Naito Parkway, Suite 3141, US Portland, OR, 97209 2820, USA
Tel: 1 503 223 9994, Fax: 1 503 223 3960, E-Mail: tug2003@tug.org
http://www.tug.org/tug2003

AGN Physics with the Sloan Digital Sky Survey
Contact: Pat Hall or Gordon Richards, Princeton Univ., Peyton Hall, Ivy Lane, US Princeton, NJ, 08544 1001, USA
Tel: 1 609 258 8073/7529, Fax: 1 609 258 1020, E-Mail: patgordon@astro.princeton.edu

Asymmetric Planetary Nebulae III: Winds, Structure, & the Thunderbird
July 27- August 1, 2003, Mount Rainier, WA, USA
Contact: Bruce Balick, Univ of Washington, Box 351580, Astronomy Dept., Univ. of Washington, US Seattle, WA, 98195-1580, USA
Tel: 1 206 543 7683, Fax: 1 206 685 0403, E-Mail: balick@astro.washington.edu

International SKA Conference 2003
July 27-August 2, 2003, Geraldton, Australia
Contact: Michelle Storey, CSIRO ATNF, PO Box 76, AU Geraldton, NSW 1710, Australia
Tel: 61 2 9372 4590, Fax: 61 2 9372 4310, E-Mail: richerie.Storey@csiro.au

Physics & Astrophysics of Neutron Stars
July 28-August 1, 2003, Inn at Loretto, Santa Fe, NM, USA
Contact: Chris Fryer, Los Alamos National Laboratory, T-6, MS B227, US Los Alamos, NM, 87545, USA
Tel: 1 505 665 3394, Fax: 1 505 664 0007, E-Mail: fryer@lanl.gov
http://neutron-stars.lanl.gov/

Fifth J.J. Giambiagi Winter School: Precision Cosmology
July 28-August 1, 2003, Physics Department, Univ. of Buenos Aires, Argentina
Contact: F.C. Lombardo, Physics Dpt, Univ Buenos Aires, Pab.I Ciudad Universitaria, AR Buenos Aires, 1428, Argentina
Tel: 541145763390 ext.823, Fax: 541145763357
28th International Cosmic Ray Conference
July 31-August 7, 2003, Tsukuba, Japan
Contact: Takaaki Kajita, Institute for Cosmic Ray Research, 5-1-5, Kashiwanoha, Kashiwa,
IP Chiba, 277 8582, Japan
Tel: 81 471 36 5104, Fax: 81 471 36 3126, E-Mail: icrc2003@icrr.u-tokyo.ac.jp
http://www.icrr.u-tokyo.ac.jp/icrc2003/

The International Symposium on Optical Science & Technology - SPIE's
48th Annual Meeting
August 3-8, 2003, San Diego, CA, USA
Contact: SPIE Customer Service, SPIE, P.O. Box 10,
US Bellingham, WA, 98225 0010, USA
Tel: 1 360/676 3290, Fax: 1 360/647 1445, E-Mail: spie@spie.org
http://www.spie.org

The Fourth Conference on the Inspiration of Astronomical Phenomena (INSAP)
August 3-9, 2003, Magdalen College, Oxford Univ., Oxford, UK
Contact: Professor Ray White, Steward Observatory, 933 N. Cherry Ave., Univ of Arizona,
US Tucson, AZ, 85721 0065, USA
Tel: 1 520 326-3005, Fax: 1 520 621N 1532, E-Mail: rwhite@as.arizona.edu,
http://ethel.as.arizona.edu/~white/insap/insap4x.htm

Cometary Dust in Astrophysics
August 10-14, 2003, Mount Rainier, WA, USA
Contact: Donald Brownlee, Univ. of Washington,
US Seattle, WA, 98195 1580, USA
E-Mail: brownlee@bluemoon.astro.washington.edu

August 17-24, 2003, St. Petersburg, Russia
Contact: Victor Orlov, Sobolev Astronomical Institute of St. Petersburg,
State Univ., Universitetskij pr. 28, St. Petersburg,
RU Stary Peterhof, 198504, Russian Federation
Tel: 7 812 428 42 16, Fax: 7 812 428 71 29, E-Mail: agava@astro.spbu.ru
http://www.astro.spbu.ru/AGAVA

Star and Structure Formation: From First Light to the Milky Way
August 18-22, 2003, ETH Zurich, Switzerland
Contact: Marianna Berger
Tel: 41 1 633 22 86
Fax: 41 1 633 12 38
E-Mail: berger@astro2.ethz.ch

Contact: Andras Holl, Konkoly Observatory, P.O. Box 67,
HU Budapest, 1529, Hungary
Tel: 36 1 3754122, Fax: 36 1 2754668, E-Mail: holl@konkoly.hu
http://www.konkoly.hu/renam03/

Radio Astronomy at 70: from Karl Jansky to microjansky
August 27-29, 2003, Budapest, Hungary
Contact: Leonid Gurvits, Joint Institute for VLBI in Europe, P.O. Box 2,
NL Dwingeloo, 7990 AA, Netherlands
Tel: 31 521 596500, Fax: 31 521 597332, E-Mail: gurvits@jive.nl
http://www.konkoly.hu/jenam03/
Four Years of Chandra Observations: A Tribute to Riccardo Giacconi
September 16-18, 2003, Huntsville, AL, USA
Contact: Martin C. Weisskopf, NASA MSFC, SD50, US Huntsville, AL, 35812, USA
E-Mail: Martin.Weisskopf@msfc.nasa.gov, http://cxc.harvard.edu/giacconi/

Science with Adaptive Optics
September 16-19, 2003, ESO Headquarters, Garching, Germany
Contact: Wolfgang Brandner, Max-Planck-Institut fuer Astronomie, Koenigstuhl 17, DE Heidelberg, 69117, Germany
Tel: 49 6221 528 289, Fax: 49 6221 528 246, E-Mail: aoscience03@eso.org, http://www.eso.org/aoscience03

Plasmas in the Laboratory & in the Universe: New Insights & new Challenges
September 16-19, 2003, Villa Olmo, Como, Italy
Contact: Giuseppe Bertin, Dipartimento di Fisica, Università degli Studi, via Celoria 16, IT Milano, 20133, Italy,
Tel: 39 02 50317619, Fax: 39 02 5031 7272, E-Mail: como03@ifp.cnr.it, http://www.ifp.cnr.it/conference/como03

International Meteor Conference
September 18-21, 2003, Bollmannsruch, Germany
Contact: Ina Rendtel, International Meteor Organization, Mehlbeerenweg 5, DE Potsdam, 14469, Germany
Tel: 49 331 520707, E-Mail: IRendtel@t-online.de, http://aipsoe.aip.de/~rend/2003imc.html

Interacting Binaries Probing Accretion & Stellar Evolution
September 21-27, 2003, Cefalu, Sicily, Italy
Contact: Luciano Burderi & GianLuca Israel, OAR, Via di Frascati, IT Monte Porzio Catone, 3300040, Italy
Tel: 39 06 9428 6434 or 9428 6437, Fax: 39 06 9447 243, E-Mail: ib2003@ulysses.mporzio.astro.it

4th Cologne-Bonn-Zermatt-Symposium on The Dense Interstellar Medium
September 22-26, 2003, Zermatt, Switzerland
Contact: J. Stutzki, I. Physikalisches Institut, Universität Köln, Zuelpicher Str 77, DE Köln, 50937, Germany
E-Mail: zermatt2003@physik.uni-koeln.de

Numerical Methods for Multidimensional Radiative Transfer Problems
September 24-26, 2003, Heidelberg, Germany
Contact: Rainer Wehrse, Institut fuer Theoretische Astrophysik, Tiergartenstr. 15, DE Heidelberg, 69221, Germany
Tel: 9 6221 54 8973, Fax: 49 6221 54 4221, E-Mail: radconf@ita.uni-heidelberg.de, http://www.ita.uni-heidelberg.de/~radconf/

Modelling the Intergalactic & Intracluster Media
October 1-4, 2003, Vulcano (Messina - Eolian Islands), Italy
Contact: Vincenzo Antonuccio-Delogu, INAF - Catania Astrophysical Observatory, Città Universitaria - Via Santa Sofia 78, IT Catania, 95125, Italy
Tel: 39-095-7332318, Fax: 39-095-330592, E-Mail: ivan@caastro.it
Stellar Populations
October 6-10, 2003, Garching, Germany
Contact: Stephane Charlot, Max-Planck Institut fuer Astrophysik,
Karl-Schwarzschild-Str. 1
DE Garching, 85748, Germany
Tel: 49 89 30000 2015, Fax: 49 89 30000 2235
E-mail: stelpops@mpa-garching.mpg.de
http://www.mpa-garching.mpg.de/~stelpops/

Astronomical Data Analysis Software & Systems XIII
October 12-15, 2003, Strasbourg, France
Contact: Marc Wenger, Observatoire de Strasbourg, 11 Rue de l'Universite,
FR Strasbourg, 67000, France
Tel: 33 3 90 24 24 33, Fax: 33 3 90 24 24 32
E-mail: adass2003@astro.u-strasbg.fr
http://astro.u-strasbg.fr/adass2003/

Multi-wavelength Mapping of Galaxy Evolution
October 13-16, 2003, Venice, Italy
Contact: Alvio Renzini, ESO, Karl-Schwarzschild-Str. 2,
DE Garching, 85748, Germany
Tel: 49 89 320 060, Fax: 49 89 320 2362, E-mail: venice03@eso.org

The Fifth Microquasar Workshop - Microquasars & Related Astrophysics
October 13-19, 2003, Tsinghua Univ., Beijing, 100084, China
Contact: Jianfeng Zhou, Physics Department & Center for Astrophysics, Tsinghua Univ.,
CN Beijing, 100084 China
Tel: 86-10 6279-2127, Fax: 86-10 6279-2125, E-mail: microquasar@jet.uah.edu
http://jet.uah.edu/microquasar/

APHYS-2003 First International Meeting on Applied Physics
October 15-18, 2003, Badajoz, Spain
Contact: Antonio Mendez-Vilas
E-mail: secretariat@formatex.org

Spectroscopically & Spatially Resolving the Components of Close Binary Stars
October 20-24, 2003, Dubrovnik, Croatia
Contact: K. Pavlovski, Univ. of Zagreb, Department of Physics, Bijenicka cesta 32,
HR Zagreb, 10000, Croatia
Tel: 385-1-4605536, 385-1-4680336, Fax: E-mail: pavlovski@sirius.phy.hr
http://act.phy.hr/workshop

Second CHANDRA Calibration Workshop
October 27-28, 2003, Cambridge, MA, USA
Contact: CHANDRA Calibration Workshop Organizing Committee, SAO,
60 Garden Str, MS 3,
US Cambridge, MA 02138, USA
Tel: 1 617 495 7356, E-mail: ccw@cfa.harvard.edu
http://cxc.harvard.edu/ccw/

Payload & Mission Definition in Space Sciences
November 17-28, 2003, Instituto de Astrofisica de Canarias,
Contact: Ms Nieves Villoslada, Ms Lourdes Gonzalez,
ES Tenerife, Canary Island, Spain
Fax: 34 922 605210, E-mail: xvwinter@ift.facs.es
The Formation & Evolution of Massive Young Star Clusters
November 17-21, 2003, Cancun, Mexico
Contact: Henny J.G.L.M. Lamers, Utrecht Univ, or Linda J. Smith, London Univ. College
Tel: 31 30 253 5222
Fax: 31 30 253 5201
E-mail: lamers@astro.uu.nl, ljs@star.ucl.ac.uk

High Resolution Infrared Spectroscopy in Astronomy
November 18-21, 2003
ESO Headquarters, Garching, Germany
Contact: Hans Ulrich Kaufl, ESO, Karl Schwarzschild Str. 2, DE Garching, 85748, Germany
Tel: 49 89 3200 6414, Fax: 49 89 320 2362, E-Mail: ekstasy2003@eso.org
http://www.eso.org/gen-fac/meetings/ekstasy2003/

The Impact of Active Galaxies on the Universe at Large
February 16-17, 2004, Royal Society, London, UK
Contact: Katherine Blundell, Oxford Univ. Astrophysics, Keble Rd, GB Oxford, OX1 3RH, UK
Tel: 44 1865 273308, Fax: 44 1865 273390, E-mail: kmb@astro.ox.ac.uk

The INTEGRAL Universe - 5th INTEGRAL Workshop
February 16-20, 2004, Bavarian Academy of Sciences, Munich, Germany
Contact: Christoph Winkler, RSSD, ESA, ESTEC, Keplerlaan 1, NL Noordwijk, 2200 AG, The Netherlands
Tel: 31 71 565 3591, Fax: 31 71 565 5434, E-mail: Christoph.Winkler@rssd.esa.int

Planetary Defense Conference: Protecting Earth from Asteroids
February 23-26, 2004, Garden Grove, CA, USA
Contact: Dr. William H. Ailor, The Aerospace Corporation, P.O. Box 92957, US Los Angeles, CA, 90009, USA
Tel: 1 310 336 1135, Fax: 1 310 563 3004, E-mail: william.h.ailor@aero.org
http://www.aero.org/conferences/planetdef/

The Interplay among Black Holes, Stars & ISM in Galactic Nuclei
March 1-5, 2004, Hotel Serrano Gramado, Rio Grande do Sul
Contact: Thaisa Storchi Bergmann, Instituto de Fisica - UFRGS - Brazil, Campus do Vale - CP 15051, BR Porto Alegre, RS, Brazil, 91 501-970
Tel: 55 51 3316 6443, Fax: 55 51 3316 7286, E-mail: bhsign@if.ufrgs.br

TITAN from Discovery to Encounter
April 13-17, 2004, ESTEC, Noordwijk, The Netherlands
Contact: Henk Olthof, ESA/ESTEC, Keplerlaan 1, NL Noordwijk, 2200 AG, The Netherlands
E-Mail: Henk.Olthof@esa.int, http://sci2.esa.int/huygens/conference/

Interacting Binaries: Probing Accretion, Evolution & Outcome
July 4-10, 2004, Cefalu', Sicily, Italy
Contact: Luciano Burderi & GianLuca Israel, Astronomical Observatory of Rome, Via di Frascati 33, Monte porzio Catone, IT Rome, 00040, Italy
Tel: 39-06/942-864-27, Fax: 39-06/944-7243, E-mail: lb2003@coma.mporzio.astro.it
Massive Stars in Interacting Binaries
August 16-20, 2004, La maison du lac Sacacomie, Quebec province, Canada
Contact: A. Moffat, Dept. de physique, Université de Montréal, 6128, Succ. Centre-ville, CA Montreal, QC, H3C 3J7, Canada
Tel: 1 514 343-6682/6932, Fax: 1 514 343-2071,
E-Mail: moffat@astro.umontreal.ca/bob@astro.umontreal.ca

Coronal & Stellar Mass Ejections
September 13-17, 2004, Beijing, China
Contact: Kenneth Dere, Naval Research Laboratory, Code 7663, 4555 Overlook Ave., US Washington, DC, 20375, USA
Tel: 1 202-767-2161, Fax: 1 202-767-5636

Modest 7 - Modeling Dense Stellar Systems
August 29-31, 2005, Northwestern Univ., Evanston, USA
Contact: Fred Rasio, Northwestern Univ, Dept of Physics & Astronomy, 2145 Sheridan Rd, US Evanston, IL, 60208, USA
Tel: 1-847-467-3419, Fax: 1-847-467-6857, E-mail: rasio@northwestern.edu
http://www.manybody.org/modest-7.html
The IAU Divisions

Division I
Fundamental Astronomy
Nicole Capitaine
Observatoire de Paris
SYRTE
61 Av de l’ Observatoire
FR 75014 Paris
France
Tel: 33 1 40 51 2231
Fax: 33 1 40 51 2291
nicole.capitaine@obspm.fr

Division II
Sun & Heliosphere
Arnold O. Benz
Institut für Astronomie
ETH Zentrum
CH 8092 Zürich
Switzerland
Tel: 41 1 632 4223
Fax 41 1 632 1205
benz@astro.phys.ethz.ch

Division III
Planetary Systems Sciences
Mikhail Ya. Marov
Keldysh Institute for
Applied Mathematics
Academy of Sciences
Musskaja Sq 4
RU 125047 Moscow
Russian Federation
Tel: 7 095 250 0485
Fax: 7 095 972 0737
marov@spp.keldysh.ru

Division IV
Stars
Beatriz Barbuy
IAG-USP
Dept de Astronomia
Av. do Mato 1226
Universidad de Sao Paulo
CP 3386
BR 0508-900 Sao Paulo
Brazil
Tel: 55 11 3091 2810
Fax: 55 11 3091 2860
barbuy@astro.iag.usp.br

Division V
Variable Stars
Edward F. Guinan
Astronomy Dpt
Villanova University
800 Lancaster Av
US Villanova PA 19085
USA
Tel: 1 610 519 4823
Fax: 1 610 519 6132
edward.tsuinani@villanova.edu

Division VI
Interstellar Matter
Bo Reipurth
Institute for Astronomy
University of Hawaii
2680 Woodlawn Drive
US Honolulu HI 96822
USA
Tel: 1 808 956 8312
Fax: 1 808 988 2790
reipurth@hawaii.edu

Division VII
Galactic System
Georges Meylan
STScI
3700 San Martin Drive
US Baltimore MD 21218
USA
Tel: 1 410 338 4483
Fax: 1 410 338 4767
meylan@stsci.edu

Division VIII
Galaxies and the Universe
Virginia L. Trimble
From January to June
Dept.of Physics
University of California
US Irvine CA 92697
USA
Tel: 1 949 824 6948
Fax: 1 949 824 2174
vtrimble@uci.edu

From July to December
University of Maryland
Astronomy Dpt
US CollegePk M D 20742
USA
Tel: 1 301 405 5822
Fax: 1 301 314 9067
vtrimble@astro.umd.edu

Division IX
Optical & Infrared Techniques
Arlo U. Landolt
Dpt Physics & Astronomy
Louisiana State University
US Baton Rouge LA
70803 4001
USA
Tel: 1 225 578 1160
Fax 1 225 578 7001
landolt@rouge.phys.lsu.edu

Division X
Radio Astronomy
Lucia Padrielli
Istituto Radioastronomia
CNR
Via P Gobetti 101
IT 40129 Bologna
Italy
Tel: 39 051 639 0384
Fax: 39 051 639 9431
padrielli@ira.cnr.it

Division XI
Space and High Energy Astrophysics
G. Srinivasan
RRI
Sadashivanagar
CV Raman Av
IN Bangalore 560 080
India
Tel: 91 80 361 0122/1009
Fax: 91 80 361 0492
sriniv@rri.res.in