3.1. APPROVAL OF MINUTES OF EC77 & EC 78

INTERNATIONAL ASTRONOMICAL UNION

Executive Committee

77th Meeting

Darling Harbour Convention and Exhibition Centre, Sydney, Australia

July 13-15 & 24 2003

DRAFT MINUTES

EXECUTIVE COMMITTEE:

Present:

Franco Paci ni

Ronald D. E kers

Hans R ickman

Tians Nickinan

Oddbjørn E ngvold

Catherine C esarsky

Norio Kaifu Silvia T orres-Peimbert

Robert E. Will iams

Johannes An dersen

Karel A. va n der Hucht

President

President-Elect

General Secretary

Assistant General Secretary

Vice-President

Vice-President

Vice-President Vice-President

Adviser

Incoming Assistant General Secretary

Absent:

Nikolai Kar dashev

Kenneth A. Pounds

Robert P. Kraft

Vice-President

Vice-President

Adviser

DIVISION PRESIDENTS:

Division I	Fundamental Astronomy	Nicole	Capitaine
Division II	Sun & Heliosphere	Arnold O.	Benz
Division III	Planetary Systems Sciences	Michael	A'Hearn
Division IV	Stars	Beatriz	Barbuy
Division V	Variable Stars	Edward F.	Guinan
Division VI	Interstellar Matter	Во	Reipurth
Division VII	Galactic System	Georges	Meylan
Division VIII	Galaxies and the Universe	Virginia L.	Trimble
Division IX	Optical & Infrared Techniques	Arlo U.	Landolt
Division X	Radio Astronomy	Lucia	Padrielli
Division XI	Space and High Energy Astrophysics	G.	Srinivasan

In attendance:

Monique L éger-Orine

Executive Assistant

APPROVAL OF AGENDA

After some minor reshuffling, the agenda is approved.

EXECUTIVE COMMITTEE MATTERS

APPROVAL OF MINUTES OF EC76

The minutes are approved.

BUSINESS CONDUCTED BY CORRESPONDENCE SINCE EC76

- * Discussion of proliferation of meetings in astronomy: The opinions of Division Presidents on providing web-based clearing houses for meeting ideas by means of notice-boards were solicited; the replies were predominantly negative to such an idea, indicating that relevant services already exist
- * Attempt to stimulate the initiation of a biennial series of meetings on astronomical instrumentation: After email consultation with Su Ding-qiang and Richard Schilizzi, it was found that GA25 should offer the first opportunity to discuss this further within the community.
- * Waiver of Armenian dues for 2000-2002: Such a waiver was offered on the condition that the dues for 2003 were promptly paid.
- * Year of Astronomy 2009: A draft type B Resolution from Comm. 41 was discussed and revised; EC support for this initiative was expressed.
- * International Heliospheric Year 2007: Some preliminary investigations into this initiative within COSPAR were started, and decisions about any IAU support are pending.
- * Membership of Serbia and Montenegro: The application for Full Membership of the IAU from this new country was preceded by a preliminary hearing of the EC members' opinions, and it was found that there was in principle support for this new membership.
- * New Statutes and Bye-Laws: These documents were circulated in the EC as well as among Division Presidents to invite comments in preparation for finalization and submission to the Adhering Bodies.
- * New Publishing contract: Ideas for the general terms of this contract emanating from discussions within the WG on Publishing were circulated and preliminarily discussed.
- * Exclusion of CAAA: Following five years of non-payment, CAAA has to be excluded from the Union, and it was decided to inform them of this indicating that prompt payment for 2003 might overturn the situation.
- * Exhibition booth in Sydney: Opinions on this initiative were solicited, and ways to help increasing support for the IAU were discussed. Preparations for a booth were started.
- * Working Groups: It was decided to support the creation of a WG on Supernovae under Div. VIII upon request by the WG Chair and Div. VIII President. A proposal for an EC WG on Women in Astronomy was also received.
- * Near-Earth Objects: The GS spent considerable effort on preparing an application for an ICSU Grant in the 2004 programme about an International, multidisciplinary study of comet/asteroid impacts and their consequences for human society; this was submitted to ICSU together with several other ICSU bodies.

REPORT OF THE FINANCE SUB-COMMITTEE

No report has been received

COLLABORATION WITH THE PETER GRUBER FOUNDATION

Patricia Murphy Gruber and Mary Gregg, from the Peter Gruber Foundation are introduced by R. Williams and express their satisfaction as regards the handling of both the Cosmology Prize and the Fellowship Programme.

MATTERS CONCERNING THE COSMOLOGY PRIZE

Advisory Board

For the time being, the Advisory Board is composed as follows:

- V. R adhakrishnan
- R.E. Williams
 - L. W oltjer

Nominations

Nominations for the Cosmology Prize 2004 are open through August 31, 2003. Nominations for the Cosmology Prize 2005 will open January 1, 2004.

P. Gruber announces that, for next year, an amount of USD 200,000 will be assigned to the Cosmology Prize.

Publicity Issues

The EC recommends to choose, for the announcement of the Cosmology Prize a venue which has a tradition in astronomy. It is also recommended that this announcement be done jointly between the Peter Gruber Foundation and the IAU, and released at the same time by the National Committees for Astronomy.

RUNNING OF THE FELLOWSHIP PROGRAMME

Altogether, the IAU has received 18 candidatures (1 from Belarussia: George Pavlovski, 1 from Brazil: Hektor S. Alves Monteiro, 2 from Greece: Nectaria Gizani and Yiannis Tsamis, 4 from India: S.G. Bhargavi, Minu Joy, Subharti Ray, Parampreet Singh, 2 from Indonesia: Jasinta D.M. Dewi and Sandi Setiawan, 1 from Japan: Yasunobu Uchiyama, 2 from Mexico: Alfredo Franco Balderas and Mayra Osorio, 1 from Morocco: Abouazza Elmhamdi, 2 from the Russian Federation: Alexander Lutovinov and Dmitry Makarov, 1 from Sweden: Marcus Gunnarsson and 1 from Ukraine: Oleg Kochukhov), and among them are 4 women.

The work of the IAU Selection Committee led to the nomination of the following two PGF Fellows in 2003:

- Dr. Mayra Osorio, from the National University of Mexico, to do research on modelling emission of dust and molecules in protostellar envelopes and disks at the Instituto de Astrofísica de Andalucía, Granada, Spain;
- Dr. Yiannis Tsamis, age 31, from Thessaloniki, Greece with a PhD. from University College London, to do research on chemical inhomogeneities in HII regions at the Observatoire de Paris-Meudon, France.

The IAU congratulates these two Fellows on their awards and wishes them successful and rewarding stays at their respective host institutes!

The consultation with the Peter Gruber Foundation raises anticipation of further strengthening of also the fellowship programme.

PLANNING FOR GA XXV

AGENDAS FOR GA SESSIONS 1 AND 2, AND ADMINISTRATIVE SESSIONS

No remarks.

COUNTRIES IN ARREARS, VOTING RIGHTS

The problem stands with France, the Russian Federation and Brazil. Proofs of their willingness to pay will be requested before allowing them to take part in the votes.

The following are definitely excluded for voting: Algeria, Armenia, Brazil, Bulgaria, Chile, Cuba, Egypt AR, Georgia, Jordan, Latvia, Lithuania, Macedonia (The FYR of), Morocco, Tajikistan, Ukraine, Uzbekistan, and Venezuela.

RESOLUTIONS

The Executive Committee discusses three resolutions of type B which will be submitted to the vote of the General Assembly:

Commission 5: "Public Access to Astronomical Archives"

Commission 41: "2009, The World Year of Astronomy". Concerning this resolution, support of UNESCO will be sought. An ad hoc committee will be set up. This item is transferred to the incoming EC.

Commission 46: "Astronomy education at the beginning of the 21st century"

The resolution submitted by Commissions 40 & 41 on "Historic Radio Astronomy" is to be considered as Resolution C, and thus will not be presented for vote to the General Assembly. It is also proposed to create an Inter Division Working Group between Division X and the proposed Division XII.

FINANCIAL STATUS, TRAVEL GRANTS

CHF 392515 have been allotted as grants. This amount includes all types of grants: Symposia, General Assembly per se and to Presidents of Commissions.

LOCAL ORGANISATION, PRELIMINARY NOC REPORT

Harry Hyland reports that already 2030 participants have registered, among them 1540 IAU Members. Guests represent 10% of the participants and 66 countries are represented. The countries represented with more than 100 participants are: USA (618), Australia (342), China (134), Japan (131), Germany (118), and France (100). The different sponsors of the events are ASA, ATNF, Connel Wagner, CSIRO, DEST, DIR, AARNET/Grangenet. The associated events received subsides from the British Council, the Donovan trust, and UNSW. The EC thanks Harry Hyland for the tremendous work accomplished in order to make a success of this General Assembly.

NATIONAL MEMBERSHIP

The EC recommends the applications for full membership of Nigeria and Serbia Montenegro, which will be submitted to the vote of the National Representatives.

The EC takes note, with thanks, of the request by Romania and Tajikistan to become full members.

The EC regrets the termination of CAAA'S* membership, due to lack of payment of dues the since 1997, year of their adherence to the IAU as Associate Members. S. Torres-Peimbert is asked to keep

the contact with this community. It is also to be noted that the TAD programme is still alive with these countries.

* Central American Assembly of Astronomers, CAAA.

The EC appreciates, with thanks, India's increase of category from III (4 units of contribution) to IV (6 units of contribution).

NEW STATUTES AND BYE-LAWS

Intensive efforts have been spent by the ad hoc committee working on the new Statutes and Bye-Laws. The text which will be submitted to the vote of the General Assembly reflects inputs from the Adhering Bodies and discussions with the Presidents of Division.

MATTERS CONCERNING DIVISIONS

CREATION OF DIVISION XII

The new Statutes and Bye-Laws require that all Commissions belong to a Division. As a consequence, the creation of Division XII on interdisciplinary matters including Commissions 5, 6, 14, 41, 46 and 50 will be submitted to the vote of the General Assembly.

PROBLEMS IDENTIFIED; WAYS TO IMPROVE

Terms of Reference

Beatriz Barbuy is in charge of preparing a suitable text, in consultation with Division Presidents, as a basis for preparation for Terms of Reference for the Divisions.

EC meetings

The presence of the Division Presidents at the Executive Committee meeting, advising on the program of the General Assembly has proved to be very efficient and it is decided to repeat the invitation for the EC to be held in 2005.

NEW PRESIDENTS AND VICE PRESIDENTS OF DIVISIONS

The GS presented nominations for new DPs and VPs that have been received from Division. No nominations were received from DIX and XI.

MATTERS CONCERNING COMMISSIONS AND WORKING GROUPS

NEW PRESIDENTS AND VICE PRESIDENTS OF COMMISSIONS

Preliminary lists of new Presidents and Organising Committees of IAU Commission received were presented. This list will be finalized for the second session of the General Assembly.

TERMS OF REFERENCE AND CONTRACT FOR THE MINOR PLANET CENTER

Due to the rapidly growing volume of activities in the field, which will likely soon exceed the capabilities of any single institution, it is proposed that the MPC delegate specific responsibilities or services to collaborating institutions. Consequently, a new version of the Terms of Reference has been drafted. It is important to get both points of view. The main concern is the non release of data which should be made public at a convenient date. This was done during the General Assembly by discussions with the MPC Director, Brian Marsden. It is decided that a small group, composed of Hans Rickman, Michael A'Hearn, Johannes Andersen, Silvia Torres-Peimbert and Robert Williams will follow this issue.

REAPPOINTMENT/CREATION OF EC WORKING GROUPS**

Reappointment

- Working Group for Future Large Scale Facilities
- Working Group on Publishing

Creation

- Working Group for Women in Astronomy
- Working Group "2009, the Year of Astronomy"

REAPPOINTMENT/CREATION & TERMINATION OF DIVISIONAL WORKING GROUPS

Division I

Reappointment

WG General Relativity in Celestial Mechanics, Astrometry & Metrology (RCMAM)

WG Redefinition of Universal Time Coordinated (TCU)

WG Future Developments in Ground-Based Astrometry (FDGBA)

Creation

WG Precession & the Ecliptic

WG Nomenclature for Fundamental Astronomy (NFA)

Termination

WG International Celestial Reference Systems (ICRS)

Division II

Reappointment

WG Solar Eclipses

WG Solar & Interplanetary Nomenclature

Creation

WG International Solar Data Access

WG International Collaboration on Space Weather

WG Termination

Solar Data Distribution

Division III

Reappointment

Committee on Small Bodies Nomenclature (CSBN)

WG Planetary System Nomenclature (WGPSN)

WG Extra Solar Planets (WGESP)

Committee Termination

Minor Planet Center Advisory Committee (MPCAC)

Division IV

Reappointment

WG Hot Massive Stars

WG Abundances in Red Giants

Division V

Reappointment

WG Archiving Spectroscopic Data

Creation

WG Variable & Binary Stars in Galaxies

Division VI

Reappointment

WG Star Formation

WG Astrochemistry

WG Planetary Nebulae

Division VIII

Creation

WG Supernovae

WG Computational Astronomy

Division IX

Reappointment

WG Optical/IR Interferometry

Division X

Reappointment

WG Global VLBI

WG Interference Mitigation

WG Astrophysically Important Spectral Lines

Division XI

Reappointment

WG Astronomy and related Sciences on the Moon

WG Particle Astrophysics

Inter Division Working Group D I/D III

Reappointment

WG Near Earth Objects (NEOs)

Creation/Transformation

IUA/IUGG/COSPAR WG on Cartographic Coordinates & Rotational Elements of Planets & Satellites

Inter Division Working Groups D IV/DV

Reappointment

WG Active B Stars

Creation/Transformation

WG Ap & Related Stars

Inter Division Working Group DIX/DX

Creation

WG Encouraging the International Development of Antarctic Astronomy

Inter Division Working Group D X/D XII

Creation

WG Historic Radio Astronomy

Note: The review of the WGs or PGs of Commissions previously belonging to the EC is left to the acceptance of the newly created Division XII.

RULES CONCERNING THE WORKING GROUPS

An ad hoc committee composed of Hans Rickman, Robert Milkey, Johannes Andersen and Robert Williams as adviser is set up. This committee should propose new rules in order to reflect the new Statutes and Bye-Laws which are proposed to the vote of the General Assembly through their National Representatives.

FINANCIAL MATTERS

PAYMENT OF DUES

The arrears for the past 4 years stand as follows (Amount in CHF):

Year	Dues budgeted	Arrears	%
1999	749300	2450	0.32
2000	772160	20780	2.69
2001	806000	72315	8.97
2002	825500	162141	19.64
Total:	3252960	257686	7.92

For information, the dues budgeted for 2003 are CHF 847600. As of today, CHF 455380 have been received, giving thus a balance of CHF 392220.

AUDITED ACCOUNTS 2000-2002

The discrepancy between the accounts and the budget are due to:

- IAUS210 decided in 2000, held in 2002 instead of 2001
- IAUC191 held in 2003 paid in 2002
- ISYA Argentina, held beginning of 2003 paid end of 2002 for an amount of CHF 63000 instead of CHF 30000 budget (Michèle Gerbaldi has received a grant from UNESCO for an amount of USD 5000, i.e. CHF 7450 which will appear in the accounts 2003)
- The EC meeting of 2002 has been very expensive, due to the presence of the Division Presidents who were invited
- CHF 35500 have been paid to the PGF grantees

A question arises concerning the reason to keep the accounts in CHF and not in EUR. For the moment, the Swiss Franc is very stable compared to other currencies. However, it is foreseen to move to Euros in the future.

DRAFT BUDGET 2004-2006

It is suggested to decrease the number of Colloquia to be funded in order to save money for the General Assemblies.

FUTURE GENERAL ASSEMBLIES

PLANNING FOR GA26, 2006

SELECTION OF VENUE FOR GA XXVII, 2009

Among the four invitations which have been presented by their respective proposers (China Beijing, Shanghai, Canada, Montreal, USA, Hawaii and Brazil, Rio de Janeiro), after vote among the EC, the choice is Brazil. This recommendation will be submitted to the General Assembly.

LETTER OF INTENT FOR GA XXVIII, 2012

An invitation to hold the General Assembly in Thessaloniki, Greece, has been received.

EDUCATIONAL PROGRAMMES

REVIEW OF ISYA IN ROMANIA

The survey conducted concerning the ISYA in Romania (1999) shows that out of 50% replies, 2/3 of the participants are still active in astronomy, many of them studying abroad (mainly in Germany, through the ERASMUS program), 1/3 of them are teaching in high schools, and 2 of them are preparing a PhD.

ISYA PROPOSALS FOR 2004 AND 2005

The ISYA in Morocco (2004) is accepted, provided final agreement from Michèle Gerbaldi. The budget authorized is CHF 45000.

The ISYA in Mexico, scheduled for 2005, is accepted.

The proposal made by Professor Sobouti to hold an after ISYA meeting of 3 days in June 2004, coinciding with the transit of Venus is accepted and budgeted for up to CHF 6000.

TAD IN 2003 AND ONWARDS; PHILIPPINES PROJECT

This programme aims to build up astronomy education in countries, where astronomy does not previously exist or is dormant, and that have requested such help from the IAU. The activities during the previous triennium were initially focused on Vietnam, Central America, and Morocco.

Another project has been initiated with the Philippines, and the General Secretary visited Manila in October, 2002, to sign an agreement for this undertaking.

COSPAR/IAU WORKSHOP

The IAU co-sponsored the Capacity-Building Workshop in X-Ray Astronomy, in collaboration with COSPAR, held at Udaipur, India in January 2003. This workshop was attended by advanced students and scientists in the beginning of their careers from the regions around the host country and involved both lectures and practical exercises in the form of project works.

RELATIONS TO OTHER ORGANIZATIONS

ICSU

A grant application for 2005 has been successfully submitted to ICSU, with the support of IUGG, IUGS, COSPAR, SCL/ILP, SCOR and the US National Academy of Sciences on the subject "Comet/Asteroid Impacts and Human Society". The grant amounts for the year 2004 to USD 100,000.

COSPAR

Hans Rickman remains the IAU representative to the COSPAR Council. There is at the moment no IAU member of the Bureau, the term of Johannes Andersen having terminated in October 2002, due to COSPAR's statutes.

UN-COPUOS

The 40th session of the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space (17-28 February 2003 was attended by J. Cohen, S. Isobe and A. Carusi (former Pres. Comm. 20), as the issues of Frequency Interference Mitigation, Capacity Building, and Near-Earth Objects, respectively, were tackled by the respective Action Teams.

The IAU applied officially for Consultative Status at the United Nations Economic and Social Council (ECOSOC) in order to formally fulfill the requirements for consultative status at UN-COPUOS.

INTERNATIONAL HELIOSPHERIC YEAR

A. Benz attended a session of the EGS/AGU/EGU spring meeting in Nice devoted to the proposed International Heliospheric Year. His recommendation is that the IAU should be part of this event, no other international organization being involved, COSPAR being with CA WSES. The responsibility on the IAU side could be given to the incoming President of Division II, D Webb, who will also preside Commission 49 on Interplanetary Plasma and Heliosphere, through a Working Group of Division II, proposal which has received a positive answer from N. Gopalswamy, but it needs to be confirmed by the IHY group and Division II Organizing Committee.

NOMINATION OF REPRESENTATIVES

Acronym	Representative(s)	Organisation		
ICSU	O. Engvold	International Council for Science		
BIPM/Bureau International des Poids & Mesures				
CCTF → CCU	T. Fukushima N. Capitaine	Consultative Committee for Time & Frequency Consultative Committee for Units		
CIE	S. Isobe	Compagnie Internationale de l'Eclairage		
CODATA	R. Norris	Committee on Data for Science & Technology		
COŚPAR / Committee on Space Research				
Council	H. Rickman	Committee on Space Research Council		
SC B	M. Marov	Space Studies of the Earth-Moon System,		
SC D	M. Vandas	Planets & Small Bodies of the Solar System		
3C D	IVI. Vailuas	Space Plasmas in the Solar System, including Planetary Magnetospheres		
SĊ E	W. Wamsteker	Research in Astrophysics from Space		
SC E1	G. Srinivasan	Galactic and Extragalactic Astrophysics		
SC E2	A. Benz	The Sun as a Star		
FAGS	N. Capitaine	Federation of Astronomical & Geophysical		
Services				
	E.A. Tandberg-Hanssen			
IAF	H. Olthof	International Astronautical Federation		
IERS	J. Vondrak (until 2004)	International Earth Rotation & Reference Systems Service		

IGBP	R. Strom	International Geosphere-Biosphere Programme
ISES	H. Coffey	International Space Environment Service
ITU/Internationa ITU-R	l Telecommunication Unic W. Klepczynski T. Gergely M. Ohishi	n Radiocommunication Bureau
IUCAF	K. Tapping D. Emerson J. Cohen	Scientific Committee on Frequency Allocations for Radio Astronomy & Space Science
IUPAP C 4 C 19	H. Rickman H. Voelk V. Trimble	International Union of Pure & Applied Physics Commission on Cosmic Rays Commission on Astrophysics
IVS	P. Wallace	International VLBI Service for Geodesy and Astrometry
SCAR	J. Storey	Scientific Committee on Antarctic Research
SCOSTEP	B. Schmieder	Scientific Committee on Solar-Terrestrial Physics
UN/United Natio COPUOS	K.A. van der Hucht	Committee on the Peaceful Uses of Outer Space
URSI	L. Rodriguez	Union Radio-Scientifique Internationale

STATUS OF APPROVED SCIENTIFIC MEETINGS IN 2003

The six IAU Symposia are all being held at the venue of GAXXV, and one IAU Colloquium is held the week before at Christchurch, New Zealand. The preparation for all meetings went smoothly and the attendances to the meetings held earlier this year were satisfactory.

- S221 Star Formation at High Angular Resolution Sydney, Australia, July 22-25, 2003
- S220 Dark Matter In Galaxies Sydney, Australia, July 21-25, 2003
- S219 Stars as Suns: Activity, Evolution & Planets Sydney, Australia, July 21-25, 2003
- S218 Young Neutron Stars & their Environment Sydney, Australia, July 14-17, 2003
- S217 Recycling Intergalactic & Interstellar Matter Sydney, Australia, July 14-17, 2003
- S216 Maps of the Cosmos Sydney, Australia, July 14-17, 2003
- C193 Variable Stars in the Local Group Christchurch, New Zealand, July 6-11, 2003

C192 Supernovae (10 Years of SN1993J)

Valencia, Spain, April 22-26, 2003

C191 The Environment And Evolution Of Double and Multiple Stars

Yucatan, Mexico, February 3-7, 2003

PUBLICATIONS

IAU TRANSACTIONS

Transactions of the IAU Vol. XXVA

Ed. Hans Rickman

Astronomical Society of the Pacific, ISBN: 1-58381-137-0, 2003

Reports on Astronomy 1999 - 2002

Ed. Hans Rickman

Astronomical Society of the Pacific, ISBN: 1-58381-137-0, 2003

SYMPOSIA

206 Cosmic Masers: from Protostars to Blackholes

Rio de Janeiro, Brazil, March 5-10, 2001

Eds. V. Migenes & MJ. Reid

Astronomical Society of the Pacific, ISBN: 1-58381-112-5, 2002

208 Astrophysical Supercomputing Using Particle Simulations

Tokyo, Japan, July 10-13, 2001

Eds. K. Machino & P. Hut

Astronomical Society of the Pacific, ISBN: 1-58381-139-7, 2003

211 Brown Dwarfs

Hawaii, USA, May 20-24, 2002

Ed. E.L. Martín

Astronomical Society of the Pacific, ISBN: 1-58381-132-X, 2003

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

Astronomical Society of the Pacific, ISBN: 1-58381-133-8, 2003

COLLOQUIA

184 AGN Surveys

Eds. R.F. Green, E.Ye. Khachikian & D.B. Sanders ASP Conference Series, Vol. 284, ISBN 1-58381-127-3, 2002

186 Cometary Science after Hale-Bopp

Eds. H. Boehnhardt, M.R. Kidger & R. Schulz

Kluwer Academic Publishers, Vol 1, ISBN 1-420-1288-8, 2003

187 Exotic Stars as Challenges to Evolution

Miami, USA, March 4-8, 2002

Eds. C.A. Tout & W. Hamme, Astr. Soc. Pacific, Conf. Ser. 279, ISBN 1-58381-122-2, 2002

188 Magnetic Coupling of the Solar Atmosphere

Eds. H. Sawaya-Lacoste

ESA SP-505, ISBN 92-9092-815-8, 2002

189 Astrophysical Tides: Effects in the Solar and Exoplanetary Systems

Eds. S. Ferraz-Mello & I.P. Williams Celestial Mechanics and Dynamical Astronomy, Vol. 87, Issues 1-2, pp. 1-218, 2003

IAU REGIONAL MEETING

8th Asian-Pacific Regional Meeting, Vol. II Eds. S. Ikeuchi, J. Hearnshaw & T. Hanawa Astronomical Society of Japan, 2002

NEW INDIVIDUAL MEMBERS

950 applications for membership have been received, which will be submitted to the Nominating Committee before co-option by the Executive Committee.