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MINUTES OF THE TWENTY-SECOND ANNUAL GENERAL MEETING

June 12, 1991

YORK UNIVERSITY, TORONTO, ONTARIO

S. van den Bergh, President of the Society, called the meeting to order at 14:00 EDT with about 150 members present.

1. Motion to adopt the Minutes of the 1990 AGM:

Motion 1. Moved by A. B. Underhill, seconded by C. M. Clement that: The Minutes of the 1990 Annual General Meeting, published in the 1990 Summer Solstice Issue of *Cassiopeia*, No 67, pp 3-8 be adopted as read.

Carried.

2. Business arising from the Minutes:

There were no items arising from the Minutes.

3. President's Report: - S. van den Bergh.

The President reported that the number of members of the Society continues to increase and the present membership is over 400.

The major activity of the Board of Directors this past year has been a Report: *Status, Plans and Possible Directions for Canadian Astronomy in the Nineteen Nineties*.

The Report had four cornerstones:

1. Canadian participation in the Gemini Project 2 - 8 metre telescopes, as a 25 percent partner with the United States of America (50%) and Great Britain (25%). The Canada-France-Hawaii Telescope and smaller well-equipped Canadian telescopes should continue to be supported adequately.
2. Significant minority participation in a number of space missions including the Hubble Space Telescope, Radioastron, Lyman/FUSE and Spectrum X-gamma.
3. Participation in both Radio and Optical telescope projects.
4. Increased NSERC support of Operating and Equipment grants.

This Report was approved by the Board at the December 1st meeting and submitted to the National Research Council and the Natural Sciences and Engineering Research Council as a background document.

The National Research Council asked the Board to expand on the Report in such a manner and on such a limited time scale that the Board felt too restricted. The Board asked NRC/NSERC to set up an ad-hoc committee to undertake this task.

Eight days ago (June 4th 1991), and made known to the Board only at this Meeting, without waiting the final Reports of the Astronomy Planning and Priorities Committee and the Peer Review Committee, the National Research Council indicated that it was not prepared to support Gemini.

The Board of Directors has not yet formulated a reply.

4. Secretary's Report: - N. W. Broten

The Secretary reported that thirty-six new members and eleven losses increased the membership by twenty-five since the last AGM, bringing the total to 408 members: 313 Ordinary, 87 Student, 5 Corporate and 3 Honorary members. The Society has lost an old friend, Dr. Peter Millman, who served as the Society's first Secretary from 1971 to 1977. The Board of Directors suspended 3 Ordinary and 2 Student members for non-payment of dues, and there have been five resignations from the Society since the last AGM.

Resignations:

B. Campbell	Annual Reviews
Marie Pageau	Canadian Astronautics Ltd
Steven Morris.	

Broten read the names of members admitted to the Society since the last Annual General Meeting:

Ordinary Members

Mario Beauchemin	Université Laval
John Caldwell	York University
Gary R. Davis	Mullard Space Science Laboratory
Denise C. Gabuzda	University of Calgary
Xin-Min Hua	Space Astrophysics Laboratory
Graham Hill	Dominion Astrophysical Observatory
Richard E. Hills	University of Cambridge
Karl W. Kamper	David Dunlap Observatory
Simon J. Lilly	University of Toronto
A. Robert McKellar	Herzberg Institute of Astrophysics
Jean M. Quashnock	University of Chicago
Sandra A. Scott	University of Toronto
Douglas I. Sparkes	Herzberg Institute of Astrophysics
Peter B. Stetson	Dominion Astrophysical Observatory
Michael J. West	University of Toronto

Transferring from Student to Ordinary Membership

Orla B. Aaquist	University of Manitoba
Marcus D. Anderson	University of Alberta
Julien Belley	CUSLM
Peter A. Bergbusch	University of Regina
Paul Charbonneau	High Altitude Observatory
Dale A. Frail	NRAO
Raymond Laflamme	DAMTP, Cambridge
Francois Menard	UJF Cerno Grenoble
Nicole St. Louis	Université de Montréal
James M. Stone	University of Illinois
Sylvain Veilleux	Institute for Astronomy, Honolulu
Catherine F. Westbury	Ridge, NY

Student Membership

Martin Aubé	Université Laval
Martin Beech	University of Western Ontario
Robert Boudreault	Université Laval
Steven T. Butterworth	McMaster University
Haiqi Chen	University of Western Ontario
Sonya Delisle	Université Laval
Patrick R. Durrell	McMaster University
Philippe Fischer	McMaster University
Paul D. Hendry	University of Toronto
Stephen Holland	McMaster University
Victoria M. Kaspi	Princeton University
Sang-Hee Kim	University of Toronto
Robin L. Kingsburgh	University College, London
Francois Rouleau	University of Toronto
Jeffery A. Secker	McMaster University
Ian K. Shelton	University of Toronto
Ian Short	University of Toronto
T. A. Aaron Sigut	University of Toronto
Benoit Turgeon	York University
H. Peter White	York University
David L. Wing	Waterloo University

Motion 2. Moved by N. W. Broten, Seconded by D. C. Morton, that: The Secretary's Report be Adopted.

Carried

5. Treasurer's Report

The Treasurer presented the audited Financial Statement.

Two or three items required some explanation:

- a) The Contribution of \$500 from Spar Aerospace was a contribution for Bursaries to assist young astronomers in travel to the General Meeting.
- b) The Secretary's expenses were much larger than in the year before, mostly because of sending the van den Bergh Report to all members. This was offset by a contribution of \$2055.68 from NRC to help defray the expenses of producing the Report.
- c) There was a payment of \$1500 to the University of Toronto for the work performed by B. Beattie in publishing *Cassiopeia*.

The Treasurer announced that the Board of Directors had changed the definition for reduced fees from "over 60" to "over 60 and retired".

Motion 3. Moved by Clement, seconded by Higgs, that the Treasurer's Report be adopted.

Carried

6. Report of the Gemini Peer Review Committee: - W. H. Wehlau.

The Peer Review Committee consisted of the following members: W. E. Wehlau (Chairman), P. Bely - S. T. S. I., R. Carlberg - U. of T., B. Oke - Cal. Inst. of Tech., J.-M. Poutissou - Triumph, S. Strom - U. of Mass., M. Tarengi - ESO Munich, J. Child - NRC (Observer), A. Isabelle - NSERC (Secretary).

Wehlau reported that the Committee had as a mandate the consideration of the Gemini proposal as it was presented in terms of feasibility, strength of the team, manpower and cost estimates.

NRC and NSERC prefer a finished report before making it public but it was possible to say a few things about the report. The Committee concluded that Gemini presented a unique opportunity for Canadian astronomy. The project team was excellent and the cost of management compared with that in other institutions. The funding was estimated to be realistic; however, it was necessary that all of the required funds be identified.

In response to a question, Wehlau said that the Committee had identified areas of concern, one of which was that delays in decisions could result in increased costs.

7. Update on Activities of the Astronomy Priorities and Planning Committee: - G. Harris.

G. Harris gave a brief description of the mandate of the Astronomy Priorities and Planning Committee. The Committee is composed of the following members: Ian McDiarmid (Chairman), J. E. Hesser - DAO, D. P. Hube - U. of Alberta, J. D. Landstreet - UWO, G. Fahlman - UBC, L. A. Higgs - DRAO, G. Joncas - Laval U., G. J. Michaud - U. of M., C. J. Pritchett - U. of Vic., J. R. Bond - CITA, E. R. Seaquist - U. of T., D. L. Welch - McMaster U., Ex Officio: G. L. H. Harris (HIA Advisory Board) & S. van den Bergh (CASCA).

Harris explained the funding scenarios requested by NRC. The Town Hall meetings were effective and provided significant input to the Committee. There were two main changes from the draft that was circulated: 1) a stronger emphasis on the negative effects of level funding (status quo) and, 2) the Radio Astronomy Committee had not clearly defined their position.

The Committee in the majority felt that, despite risks, it was important to get involved in the Gemini project, although there were some reservations about a level funding situation.

Morton responded to several questions from the floor regarding the NRC decision not to support the Gemini project. NRC said that, in the present political climate, the Government could only fund projects enhancing competitiveness. If there were substantial changes to the financial costs of Gemini then the Project could be taken back to NRC Council.

8. CFHT - SAC/CSC: - J.-R. Roy.

Roy expanded on the activities of the committee. The members are: D. Crampton, C. J. Pritchett, D. Nadeau and J.-R. Roy.

The CFHT has obtained a sum of $\$1.6 \times 10^6$ to fund a package of instruments:

- 1). IR Camera,
- 2). Active Bonnet,
- 3). Corrector of Atmospheric Dispersion,
- 4). Improvements of the f/8 Cassegrain.

An adaptive optics working group has been formed with two members from each country.

9. Motions from the Floor:

Motion 4. Moved by J. -R. Roy, seconded by P. Hickson that,

Whereas the Canadian Astronomical Society/Société Canadienne d'Astronomie, after several years of deliberation endorses the twin 8m project as their highest priority in Optical/Infrared Astronomy, and,

Whereas, based upon it's international reputation in astronomy and related technological expertise, Canada has, for the past two years, been invited and encouraged to participate with the U. S. A. and the U. K. in planning the joint construction and operation of two 8m telescopes, and,

Whereas the construction of large optical telescopes has been identified by G7 members as a visible sharing of science and technology, and,

Whereas, at the request of NRC/NSERC, the astronomical community is in the midst of an extensive planning exercise with the aim of understanding the possible impacts of major initiatives such as Gemini on the community,

The Canadian Astronomical Society considers the decision, reached by the National Research Council on June 4, 1991, that "It could not support proceeding with the Gemini initiative" to be premature and requests the Council to postpone its decision until the final reports of the Astronomy Planning and Priorities Committee and the Gemini Peer Review Committee are completed.

After much discussion and attempts at rewording the Mover and Secunder of the motion agreed to withdraw the motion.

A second motion was moved by J.-R. Roy, seconded by W. E. Harris, and an amendment was moved by P. Hickson, seconded by C. T. Bolton.

The Motion as amended reads:

Motion 5. Moved by P. Hickson, seconded by C. T. Bolton that,

Whereas the Canadian Astronomical Society/Société Canadienne d'Astronomie, after several years of deliberation endorses the twin 8m project as their highest priority new initiative in Optical/Infrared Astronomy, and,

Whereas, based upon it's international reputation in astronomy and related technological expertise, Canada has, for the past two years, been invited and encouraged to participate with the U. S. A. and the U. K. in planning the joint construction and operation of two 8m telescopes, and,

Whereas the construction of large optical telescopes has been identified by G7 members as a visible sharing of science and technology, and,

Whereas, at the request of NRC/NSERC, the astronomical community is in the midst of an extensive planning exercise with the aim of understanding the possible impacts of major initiatives such as Gemini on the community,

The Canadian Astronomical Society reiterates the priority of the Gemini Project, and considers the decision reached by the National Research Council on June 4, 1991 that "It could not support proceeding with the Gemini initiative" to be premature and inconsistent with the process it established.

Amendment Carried

Motion 6. Moved by J. R. Percy, seconded by R. F. Garrison, that,

The Canadian Astronomical Society/Société Canadienne d'Astronomie increase and improve it's commitment to astronomy education and related topics by:

- i) maintaining a strong, Active Education Committee,
- ii) including a session on education as an integral part of each annual meeting,
- iii) cooperating actively with the AAS, ASP and other organizations in educational projects and activities.

Carried unanimously.

10. Committee Reports:

1) Radio Astronomy Committee - Avery.

Avery expressed a vote of thanks to T. Landecker, a long time member, whose term on the Committee has expired. A. R. Taylor and C. R. Purton have agreed to serve another term.

Avery mentioned the two national facilities, the Dominion Radio Astrophysical Observatory and the James Clerk Maxwell Telescope. He mentioned that the DRAO upgrade to 7 telescopes is almost complete.

Another project in which Canada is involved is the USSR space telescope - Radioastron. Avery expressed concern that a formal agreement between Canada and the USSR has not been finalized, and that there was no funding yet for the Canadian Correlation Centre. He suggested that it might be appropriate for an expression of concern by CASCA to the Canadian Space Agency.

Avery reported that the Committee did not support Gemini at a level funding scenario.

The RA Report was accepted.

ii) Optical/Infrared Astronomy Committee - Crampton.

Crampton stated that the Committee had been occupied largely with the van den Bergh Report - *Status, Plans and Possible Directions for Canadian Astronomy in the Nineteen Nineties*, the Gemini project and the Long Range Planning Committee (Astronomy Planning and Priorities Committee).

Crampton reiterated the strong support for the CFHT and mentioned that telescope time is still at a premium. He emphasized that astronomers should be aware of proposal deadlines.

The Optical/Infrared Committee Report was accepted.

iii) Space Astronomy Committee - Fahlman.

Fahlman reported that the Space Astronomy Committee (JSSA) had completed a report for the Canadian Space Agency, and this work formed part of the van den Bergh Report and the Astronomy Planning and Priorities Committee draft Report.

Fahlman reminded members that the Committee is also an advisory committee to the Canadian Space Agency. The CSA has recommended that the size of the committee be reduced to 6, in line with other advisory committees. Consequently, the membership of the committee will be limited to 8 this year and reduced to 6 in 1993.

The JSSA has reassessed Canada's role in the LYMAN/FUSE mission and affirmed that the current level of Canadian participation is appropriate.

Fahlman also expressed concern that the formal Protocol defining the Canadian role in Radioastron remains unsigned.

The Canadian role in EUVITA experiment on the Spectrum x- γ mission is proceeding satisfactorily.

The report of the Space Astronomy Committee was accepted.

11. Halifax Meeting - Turner.

Turner announced that the plans for the Halifax Meeting June 27 - 30, 1992 were proceeding, and that the date had been chosen to allow those who attend to stay over for the July 1st Tattoo at Halifax.

12. Parallel Sessions at CASCA Meetings? - van den Bergh.

Van den Bergh mentioned that the number of presented and poster papers were increasing and that it was becoming difficult to accommodate all submissions in three days.

The alternative to having parallel sessions may be to allow the meeting to expand to four days. Poster sessions may be improved with less cost to the Local Organizing Committee if posters were left up for only one day.

13. Election of Auditor for 1991/92.

Van den Bergh called for nominations for Auditor.

Motion 7. Moved by G. J. Michaud, seconded by R. F. Garrison that,
The Society ask N. R. Evans to act as Auditor for 1991/92.

Carried

Van den Bergh announced that Evans had agreed to act as Auditor for 1991/92, and thanked her for performing that task in 1990/91.

14. Call for Nominations to the 1992 Nominating Committee:

Van den Bergh reminded the Meeting that, as Past President, G. F. Michaud will chair the Nominating Committee and that the Meeting was to select two additional members.

Motion 8. Moved by Higgs that

The Nominating Committee consist of G. F. Michaud, R. D. McClure and E. R. Seaquist.

Carried.

McClure and Seaquist have been nominated by acclamation to this Committee. Nominations to the Nominating Committee remain open to July 12, 1991 (for thirty days following the Annual General Meeting).

15. Future CASCA Meetings:

- i). 1992 - St. Mary's University, Halifax, NS - June 27 - 30.
- ii). 1993 - University of Victoria/DAO, Victoria, BC
- iii). 1994 - University of Western Ont. - London, ON

The dates for 1993 and 1994 have not been set.

16 Other Business:

- i). Fernie announced that the deadline for the next issue of *Cassiopeia* was June 17, 1991.
- ii). Higgs asked the Meeting for a show of thanks to M. DeRobertis and the Local Organizing Committee for a meeting well planned and executed. A large round of applause showed that the members concurred.
- iii). Broten announced to the Meeting that the IAU has named Asteroid (4230) van den Bergh and congratulated the President on behalf of the Members of the Society on the honour that has been accorded to him.

17. Adjournment:

The President declared the Meeting adjourned.

S. van den Bergh, President

N. W. Broten, Secretary

NEW PERSPECTIVES ON STELLAR PULSATION AND PULSATING VARIABLE STARS

The field of stellar pulsation is in the midst of an exciting transition. Enormous strides are being made in the understanding of variable stars in the classical instability strip, resulting in an increased usefulness of these stars for investigating problems of stellar and galactic evolution, stellar populations, and the distance scale of the universe. New classes of variable stars are being discovered all across the H-R diagram, leading to exciting new theories. High-precision, high-S/N observations are now being made at many wavelengths with a variety of new observational techniques, and these observations have greatly increased the range of detected pulsation amplitudes and timescales. 'Doppler imaging' can now identify high-degree pulsation modes in the integrated light or velocity of distant stars which would have gone undetected until the last decade. The potential of using multiperiodic variables to probe stellar masses and structure — once confined to a few double-mode Cepheids, RR Lyrae, and δ Scuti stars — has blossomed into 'asteroseismology' of the rich eigenfrequency spectra of the Sun, Ap stars, δ Scuti stars, and white dwarfs. CCD detectors are permitting complete surveys of the variable stars in star clusters in the Galaxy and in other Local Group galaxies. This progress has set new challenges for traditional pulsation theory, and has inspired improved opacity calculations and research into the connections between pulsation, evolution, mass loss, magnetic fields, and diffusion.

In July 1992, a four-day Colloquium will be held in Victoria, BC, Canada, the aim of which will be to bring together the community of scientists that are working at the forefront of observational and theoretical problems related to pulsation, and those that use pulsating stars to better understand the structure, evolution, and distances of stars and galaxies.

For further information contact: James Nemeč, Program in Astronomy, Washington State University (NEMEC@WSUMATH until May 15, 1992; after that NEMEC@NRCDAO.NRC.CA)

THE PLASKETT MEDAL/MEDAILLE PLASKETT

The Royal Astronomical Society of Canada and the Canadian Astronomical Society have established an award entitled The Plaskett Medal, in recognition of the pivotal role played by John Stanley Plaskett in the establishment of astrophysical research in Canada. The award, consisting of a gold medal, is to be made annually to the graduate from a Canadian university who is judged to have submitted the most outstanding Doctoral Thesis in astronomy or astrophysics in the preceding two calendar years.

At most two candidates should be nominated by the head of his/her astronomy/physics department from among the graduates of that university. The department head should submit a letter of recommendation and four copies of the nominee's thesis to the Awards Committee*, prior to 15 January 1992, for consideration for the 1992 award.

Note that the phrase "in the two preceding calendar years" in the eligibility rules makes it possible to re-nominate a candidate for whom an unsuccessful nomination was made in the preceding year. Because none of the documentation of previous nominations is retained for the use of the current selection committee, all re-nominations should be submitted with full documentation.

La Société Royale d'Astronomie du Canada et la Société Canadienne d'Astronomie ont institué un prix, nommé La Médaille Plaskett, en reconnaissance du rôle important qu'a joué John Stanley Plaskett dans l'implantation de la recherche en astrophysique au Canada. Le prix, qui consiste en une médaille d'or, est offert chaque année à un(e) diplômé(e) d'une université canadienne qui, d'après l'opinion du jury, a soumis la meilleure thèse de doctorat en astronomie ou en astrophysique des deux dernières années.

Au plus, deux candidat(e)s par département peuvent être proposé(e) par le directeur du département. Le directeur doit transmettre une lettre de recommandation et quatre copies de la thèse du (de la) candidat(e) choisi(e) au comité des prix* et ce, avant le 15 janvier 1992 pour que le (ou la) candidat(e) soit considéré(e) pour le prix de 1992.

S.V.P., veuillez noter que l'expression "les deux dernières années" spécifiée par les règlements d'éligibilité, permet de proposer pour une deuxième fois un(e) candidat(e) qui n'a pas été retenu(e) l'année précédente. Cependant il faut soumettre de nouveau les documents nécessaires à l'évaluation car les membres du jury changent d'une année à l'autre.

LE PRIX BEALS/THE BEALS AWARD

Le Prix Carlyle S. Beals a été institué par la CASCA en 1981 en reconnaissance des travaux de pionnier du regretté C. S. Beals. Le Prix Beals de \$1000, doit être accordé à un(e) astronome canadien(ne) ou à un(e) astronome travaillant au Canada, comme prix soulignant une contribution exceptionnelle à la recherche (contribution spécifique ou contribution s'étendant sur toute une carrière). Le (ou la) récipiendaire sera invité(e) à adresser la Société à son assemblée annuelle, et les dépenses relatives à cet événement seront couvertes par la Société.

L'octroi du prix est maintenant envisagé à tous les deux ans, à chaque année paire. Les candidat(es) pour le prix doivent être mis(es) en nomination par au moins deux membres de la CASCA, qui devront soumettre au Comité une ou des lettres de recommandation et un curriculum vitae au nom du (ou de la) candidat(e). La date limite de soumission pour le prix de 1992 est le premier novembre 1992.

The Carlyle S. Beals Award was established by CASCA in 1981 in recognition of the groundbreaking researches of the late C.S. Beals. The Beals Award of \$1000 is to be awarded to a Canadian astronomer or an astronomer working in Canada, as an award for outstanding achievement in research (either as a specific achievement or as a lifetime of research). The recipient shall be invited to address the Society at its Annual Meeting, the expenses for which shall be covered by the Society.

An award is now considered every second year, in even-numbered years. Candidates for the award may be nominated by at least two members of CASCA, who shall submit a letter or letters of recommendation and curriculum vitae on behalf of the candidate to the Awards Committee*. The deadline for submissions for the 1992 award is 1 November 1992.

* Dr. C.C. Dyer, Chairperson
CASCA Awards Committee
c/o Scarborough College, University of Toronto
1265 Military Trail
Scarborough, Ontario M1C 1A4

CANADIAN INSTITUTE FOR THEORETICAL ASTROPHYSICS/
INSTITUT CANADIEN D'ASTROPHYSIQUE THEORIQUE

POSTDOCTORAL FELLOWSHIPS

CITA is a national centre for theoretical astrophysics located at the University of Toronto. The Institute expects to offer about five postdoctoral fellowships with a starting date of 1 September, 1992. The appointments will be of two years duration. Funds will be available for travel and other research expenses. Fellows are expected to carry out original research in theoretical astrophysics under the general supervision of the permanent faculty or visitors to CITA, whose interests include: cosmology, interstellar matter, nuclear and relativistic astrophysics, star formation, stellar structure, active galactic nuclei and galactic and solar system dynamics.

Applicants should send:

- a curriculum vitae
- statement of research interests and
- must arrange for three letters of recommendation to be sent to the Director of CITA

All applications and letters should be sent to:

Professor S. Tremaine, Director,
Canadian Institute for Theoretical Astrophysics,
University of Toronto, 60 St. George Street,
Toronto, Ontario, CANADA, M5S 1A1

Deadline for applications and all letters of recommendation is 31 December, 1991

RESEARCH ASSOCIATE POSITIONS

CITA is a national centre for theoretical astrophysics located at the University of Toronto. The Institute expects to offer several research associate positions with a starting date of 1 September, 1992. The appointments will be of three years duration renewable for two years. Funds will be available for travel and other research expenses. Fellows are expected to carry out original research in theoretical astrophysics in the general areas of: cosmology, interstellar matter, nuclear and relativistic astrophysics, star formation, stellar structure, active galactic nuclei and galactic and solar system dynamics.

Applicants for research associate positions will automatically be considered for postdoctoral positions.

Applicants should send:

- a curriculum vitae

- statement of research interests and
- must arrange for three letters of recommendation to be sent to the Director of CITA

All applications and letters should be sent to:

Professor S. Tremaine, Director,
Canadian Institute for Theoretical Astrophysics,
University of Toronto, 60 St. George Street,
Toronto, Ontario, CANADA, M5S 1A1

Deadline for applications and letters of recommendation is 31 December, 1991

In accordance with Canadian immigration regulations, this advertisement is directed to Canadian citizens and permanent residents. C.I.T.A. encourages applications by qualified women and men.

ASSISTANT PROFESSOR POSITION

The Canadian Institute for Theoretical Astrophysics (CITA) invites applications for a tenure-stream Assistant Professor position that will become available in fall 1992. The principal selection criteria will be an exceptionally strong record of research activity and outstanding promise of future research accomplishments at a world-class level. The applicant's research interests should be in one of the forefront areas of modern theoretical astrophysics. Since we are seeking to diversify the research activities of the institute, the applicant's expertise should complement that of the existing CITA faculty, which includes cosmology, galactic structure, the interstellar medium, large-scale structure, solar system

dynamics, and star formation. Additional selection criteria include demonstrated ability to stimulate scientific interactions among postdoctoral researchers and ability to assume a leadership role in administering CITA's active postdoctoral and visitors' programs.

CITA is an institute within the School of Graduate Studies of the University of Toronto. The present complement of research staff includes four faculty (J. R. Bond, N. Kaiser, P. G. Martin, and S. Tremaine) and 15-20 postdoctoral fellows, research associates, and University Research Fellows.

Applicants should send:

- a curriculum vitae

- a bibliography
- a statement of research interests and
- arrange to have three letters of recommendation to be sent directly to the Director of CITA

All information should be sent to: Prof. S. Tremaine, Director, CITA, McLennan Labs, University of Toronto,

60 St. George St., Toronto, Ontario M5S 1A1, Canada.

All documents must be received by **15 January, 1992**.

In accordance with Canadian immigration regulations, this advertisement is directed to Canadian citizens and permanent residents. The University of Toronto encourages applications by qualified women and men.

OPEN LETTER FROM CFHT

Dear colleague,

As you may be aware from the CFHT Information Bulletin, CFHT is discontinuing the support of photographic plates, effective immediately. We still have a considerable stock of old plates (contact me for a complete list), however, all have been kept refrigerated or frozen at the summit. We would like to offer these plates to any observatory or laboratory that will be willing to pay for shipping from Hawaii, plus any duty and taxes.

If your institution is interested in acquiring these plates, please contact either the undersigned or Dr. Guy Monnet as soon as possible.

John Glaspey
Associate Executive Director
Telephone: (808) 885-7944
email: glaspey@cfht.hawaii.edu
Telex: 633147
Fax: (808) 885-7288

CANADIAN ASTRONOMY PUBLICATIONS June 24 to September 10, 1991

If you have a preprint or other Canadian publication, we would like to include it in this list. Please send a copy (or a photocopy of the title page) to:

Canadian Astronomy Publications List
Astronomy Library
University of Toronto
Room 1306
60 St. George Street
Toronto, Ontario
M5S 1A7

A. PREPRINTS OF RESEARCH PAPERS

The following is a list of preprints written by Canadian astronomers and received at the Astronomy library within the dates given above. The preprints are arranged in alphabetical order according to the surname of the first listed author. Originating institution and date of receipt at the library are given.

- Aaquist, O.B., Kwok, S., *High resolution radio continuum observations of compact planetary nebulae*. University of Calgary, 16-Jul-1991.
- Barlow, D.J., Scarfe, C.D., *The spectroscopic-speckle triple system HR 5472*. University of Victoria, 30-Aug-1991.
- Chan, S.J., Kwok, S., *New candidates for carbon stars with silicate features*. University of Calgary, 16-Jul-1991.
- Cote, P., Richer, H.B., Fahlman, G.G., *Star counts; blue stragglers and mass segregation in NGC 7492*. University of British Columbia/McMaster, 5-Jul-1991.
- de Oliveira, C.M., Hickson, P., *The luminosity function of compact groups of galaxies*. University of British Columbia, 14-Aug-1991.
- Dougherty, S.M., Taylor, A.R., Clark, T.A., *Near-IR observations of 101 Be stars*. University of Calgary, 7-Aug-1991.
- Drinkwater, M.J., Webster, R.L., Thomas, P.A., *Associations between galaxies and bright galaxies*. Canadian Institute for Theoretical Astrophysics, 3-Sept-1991.

- Frail, D.A., Kulkarni, S.R., *PSR 1757-24 and G 5.4-1.2: the interaction of a high velocity pulsar with its supernova remnant*. NRAO, 5-Jul-1991.
- Fullerton, A.W., Gies, D.R., Bolton, C.T., *Propagating absorption enhancements in the wind of the extreme Of supergiant HD 151804*. Bartol Research Inst., David Dunlap Observatory, University of Toronto, 9-Sept-1991.
- Gibson, B.K., Hickson, P., *Liquid mirror surface aberrations. I. Wavefront analysis*. University of British Columbia, 26-June-1991.
- Gibson, B.K., Hickson, P., *Outline of a liquid mirror telescope QSO survey*. University of British Columbia, 26-June-1991.
- Hickson, P., Gibson, B.K., *Lightweight liquid mirrors for astronomy*. University of British Columbia, 15-Jul-1991.
- Hodder, P.J.C., Nemec, J.M., Richer, H.B., Fahlman, G.G., *Deep CCD photometry and variable stars in the metal-rich globular cluster M71*. University of British Columbia, 15-Jul-1991.
- Hughes, V.A., *Time dependent radio sources in the star forming region Cepheus A (East)*. Queen's University, 2-July-1991.
- Kawai, N., Hughes, V.A., et al., *Multifrequency observations of BL Lacertae in 1988*. Queen's University, 28-June-1991.
- Kwok, S., Hrivnak, B.J., Geballe, T., Woodsworth, A.W., *F and G supergiants with large infrared excesses*. University of Calgary, 16-Jul-1991.
- Kwok, S., *Late evolution of asymptotic giant branch stars: clues from infrared and radio observations*. University of Calgary, 16-Jul-1991.
- MacLeod, G.C., Hughes, V.A., *Optically thin dust models for IRAS point sources*. Queen's University, 2-July-1991.
- Moriarty-Schieven, G.H., Snell, R.L., Hughes, V.A., *Millimeter and sub-millimeter observations of Cepheus A*. Queen's University, 2-July-1991.
- Mukhanov, V.F., Feldman, H.A., Brandenberger, R.H., *Theory of cosmological perturbations*. Canadian Institute for Theoretical Astrophysics, 3-Sept-1991.
- Normandeau, M., Joncas, G., Green, D.A., *The DRAO galactic-plane survey, III: Field at $l=85$ [degree]*. Dominion Radio Astrophysical Observatory, 24-July-1991.
- Prinja, R.K., Bolton, C.T., Fieldus, M.S., et al., *Time series observations of O stars: I. IUE observations of variability in the stellar wind of zeta Puppis*. U College London, David Dunlap Observatory, University of Toronto, 9-Sept-1991.
- Roger, R.S., Dewdney, P.E., *The development of HI dissociation zones around new HII regions*. Dominion Radio Astrophysical Observatory, 5-Sep-1991.
- Rucinski, S.M., Baade, D., Lu, W.-X., Udalski, A., *Photometry and spectroscopy of the very close early-type binary SV Centauri*. Institute for Space and Terrestrial Sciences, York University, 5-Sep-1991.
- Tribble, P., *Radio emission in a random magnetic field: radio halos and the structure of the magnetic field in the Coma cluster*. Canadian Institute for Theoretical Astrophysics, 1-Aug-1991.
- Trikha, P.K., Landecker, T.L., Routledge, D., Vaneldik, J.F., *A compact, dual-frequency feed for a prime-focus paraboloid*. Dominion Radio Astrophysical Observatory, 5-Sep-1991.
- Underhill, A.B., *About the stage of evolution of Wolf-Rayet stars*. University of British Columbia, 15-Jul-1991.
- Webster, R.L., *The effects of gravitational lensing on the quasar luminosity function*. Canadian Institute for Theoretical Astrophysics, 3-Sept-1991.
- Zhang, C.Y., Kwok, S., *Spectral energy distribution of compact planetary nebulae*. University of Calgary, 16-Jul-1991.

CASCA SMALL GRANT REPORT

Workshop on the Space Distribution of Quasars

I requested and received from CASCA a small grant for the purpose of attending the NRC-sponsored Workshop on the Space Distribution of Quasars which was held in Victoria at the Dominion Astrophysical Observatory June 3 - 5, 1991. This grant was used to cover travel, accommodation, and registration expenses.

The Workshop was, without a doubt, one of the best that I have attended anywhere. I was able to learn a lot at this meeting, and also contributed a short talk on some of my own research (which will be published along with the other contributed talks in a forthcoming volume of the A.S.P. Conference Series). I am sure that all of us who had the pleasure of attending this workshop would agree that its organizers, David Crampton and Anne Cowley, are to be congratulated for arranging a most successful and enjoyable meeting.

I am grateful to the CASCA Small Grants Programme for its generosity in acting favorably on my request for a small grant, since without CASCA's financial assistance I would have been unable to attend this excellent workshop.

Michael J. West

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