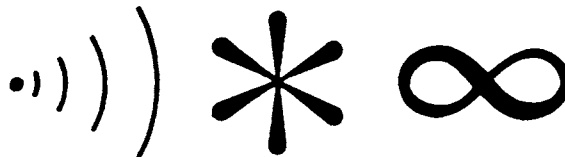


**p·a·m**

physics astronomy math



## PAM BULLETIN

Vol. 18, No. 3

PAM Bulletin

February 1991

### MESSAGE FROM THE CHAIR

#### Association Business

I have just returned from the SLA Winter Meeting in Washington where Peggy Dominy and I were representing PAM members in the conduct of association business.

The "hot topic" this year was the proposed dues increase—you may have read about it. The SLA Board has approved this increase, but there is considerable controversy about the package. I suggest that you read carefully all info that comes across your desk in the *Specialist* and be prepared to cast an informed vote in June.

Another interesting development is the approval of the Solo Librarian's Caucus' application for division status. This is a new type of division intended to serve needs that subject divisions do not currently address. Of course we hope that PAM addresses all our members' needs, but you may find membership in this division useful. The main benefits of division status are a greater allotment of funds and the capability to mount programs at conferences.

#### San Antonio Conference

The other activity in which Peggy and I were engaged in Washington was, of course, conference planning. Those of you who are going this year will want to know that the PAM Division Suite will be located in the Marriot RiverWALK. (Note

that there are two Marriot River... hotels.) All the hotels are very close together this year and there are plenty of them so we shouldn't have any of the problems that we had in Pittsburgh.

#### SAN ANTONIO PAM SCHEDULE

- |        |  |
|--------|--|
| 6/8    | Informal social meeting<br>(location and time TBA)   |
| 6/9-11 | 8:00-10:00<br>Open House/Hospitality Suite<br>Marriot Riverwalk  |
| 6/9    | 6:00-7:30<br>Joint old and new executive<br>board meeting  |
| 6/10   | 1:30-3:00<br>Astronomy Roundtable<br>Cathy Van Atta<br>3:00-4:30<br>Vendor Update, Pam Enrici  |
| 6/11   | 10:30-12:00<br>Mathematics Roundtable<br>Dorothy Manderscheid<br>1:30-3:00<br>Joint CHE, PAM, S-T Workshop<br>"Turbulence and Transformation:<br>Acad. Sci-Tech Libs. in the 90s"<br>3:00-4:30<br>PAM Business Meeting |
| 6/12   | 11:30-1:00<br>New Executive Board meeting<br>(may end earlier)<br>1:00-2:30<br>Physics Roundtable<br>Carol Hutchins  |

Hope to see you all there!

Marlene Cummins

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## PAM BULLETIN

The *PAM Bulletin* is published by the Physics-Astronomy-Mathematics Division of the Special Libraries Association. The *Bulletin* is issued four times each year: in August, November, February, and May. Subscriptions are free to PAM members and retired PAM members. Paid subscriptions are accepted: the cost is \$9.00 per year. Checks should be made payable to PAM-SLA and sent to the *Bulletin* editor.

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This issue was typeset using PCT<sub>E</sub>X. Grateful acknowledgement for his help to Stacy Waters, UW T<sub>E</sub>Xpert.

### DEADLINE FOR NEXT ISSUE MAY 1, 1991

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## 1991/92 Nominations Made

The Nominating Committee is pleased to report that the slate of PAM officers for 1991/92 is:

Chair-Elect: Carol Hutchins  
 Indiana University  
 Secretary: David Stern  
 University of Illinois

Further nominations, accompanied by a written acceptance from the nominee, may be entered by a petition of at least 10 members if filed with the Nominating Committee at least 60 days prior to the annual business meeting.

Liz Bryson  
 Cathy Van Atta  
 Camille Wanat, Chair  
 PAM Nominating Committee

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## PAM Member Given Dana Award

Dorothy McGarry of UCLA has been awarded one of SLA's 1991 John Cotton Dana awards. This award is given to SLA members in recognition of exceptional services to special librarianship. Dorothy is the third PAM member in three years to receive this award. Previous recent PAM recipients were Adelaide del Frate and Pat Molholt.

Dorothy's SLA activities have been numerous. Currently, she is Chair-Elect, Sci-Tech Division, on SLA's International Relations Committee, and SLA representative (and also chair) to IFLA's Section on Classification and Indexing. In addition, Dorothy was Chair of SLA's Committee on Cataloging (1983/84-1988/89).

A member of SLA since 1971, and PAM member since 1975, Dorothy's PAM activities include: Bulletin Editor (1989/90), Awards Committee (1985/86), Nominating Committee (1987), Membership Committee Chair (1979/81 & 1987/89), PAM Chair-Elect (1981/82), and Division Chair (1982/83).

## PHYSICS NEWS

INSPEC has announced a CD-ROM product—INSPEC-ON-DISC—which is produced by UMI and, they say, due Spring 1991. They are tentatively offering a three disc set covering 1989, 1990 and 1991. Subscription options will be the entire INSPEC (\$7500/yr.); a Physics subset (\$4500/yr.), or an Electronics/Computers subset (\$4500/yr.). I still wonder what happened to the IEEE Publications on disc project?!

### AIP Study of Group Research

In response to efforts at AIP to study large collaborations in physics and allied sciences, Fermilab Library has been working with SLAC Library to attach Fermilab Experiment numbers to high-energy physics papers in the 200,000 record SLAC/DESY HEP database maintained on SPIRES at the Stanford Linear Accelerator Center. It is now possible to search by SLAC, Fermilab, and Brookhaven experiment numbers for papers containing relevant experimental data.

To provide some background to this study I will summarize articles from the *AIP History Newsletter*, vol. XXII no. 2, Fall 1990. The *AIP History Newsletter* is a publication of the AIP Center for History of Physics. I've also added a few explanatory remarks for readers who haven't experienced the long author lists of experimental high-energy physics papers.

The immediate goal of the AIP study is to address the problems of documenting the history of large research collaborations. It is believed that in order for scholars to be able to study the collaborative research process, documentation of administrative and intellectual records of these collaborations is essential.

The methodology for the long-term study includes: (1) a computerized statistical census of a large number of collaborations, (2) interviews with 150-200 collaboration members, and (3) detailed

historical probes of a few especially important cases.

The aims of the methodology are as follows: (1) identify patterns of collaboration, (2) define the documentation problems, (3) field-test possible solutions, and (4) recommend actions to facilitate future scholarly study.

The first phase of the study focuses on high-energy physics and should be completed in 1991. As of Fall 1990, 10 members of the 20 selected collaborations have been analyzed for selected themes.

Experimental groups in high-energy particle physics have grown very large, keeping pace with the size and complexity of megabuck particle accelerators. Currently, active groups often number more than 500 physicists from dozens of institutions and countries. The resultant problems for archivists and future science historians have grown equally complex and, until the AIP study was launched, have been very poorly understood.

Some preliminary findings of the high-energy physics study are:

- Collaborations tend to originate from the physicists' desire to improve on a prior experiment and their desire to work with others they respect.
- The location of an experiment can affect the arrangements for funding.
- The size of hep collaborations does not appear to be a significant impediment to the organization and management of the work for the experiment proper.
- The size of collaborations, in combination with the length of experiments, is problematic for the timely granting of individual credit to physicists in the process of building careers.
- The "multi-institutionality" of hep collaborations appears essential to the human and material resources required.

For more information on these and other preliminary findings (on archival issues, census results, a more detailed historical analysis of selected collaborations, and the probe of the "Upsilon" discovery at Fermilab) contact the project

staff at the AIP Center: Joan Warnow-Blewett, Spencer R. Weart, Joel Genuth (Project Historian), or Lynn Maloney (Project Archivist)/American Institute of Physics/ Center for History of Physics/ 335 East 45th St./ New York, NY 10017-3483/(212) 661-9404.

Louise Addis  
Paula Garrett  
Julie Kreunen

## ASTRONOMY NEWS

In an editorial in *ApJ* 366, p. 341, Helmut Abt announces changes in the indexing policy for *ApJ*. Indexes (both subject and author) will now be published only in every third volume, i.e. every second month. This means 2 of 3 *ApJ* volumes will be without an individual volume index, and until the 6th issue of the 3 volume set arrives, the preceding 5 issues (approximately 1750 pages) can only be accessed by rummaging through the issues and the tables of contents, hardly a satisfactory method of retrieval. And what does one do about binding?

If you have comments or concerns about the new policy, I suggest you contact Dr. Abt (Dr. Helmut Abt, Editor/*Astrophysical Journal*/Kitt Peak National Observatory/PO Box 26732/Tucson, AZ 85726). Several of us expressed our concerns to Dr. Abt when the announcement was first made, but we have not yet had a response.

If you are interested in astronomy library matters and have an e-mail address, but are not yet included in the ASTROLIB network, you can be added to the distribution list by contacting me (library@nrao.edu). The e-mail distribution list for astronomy librarians includes many of our colleagues around the world (not just PAM members). Astronomy librarians send me e-mail messages about items of specific concern to them, and I forward the message to the distribution list. There are actually two distribution

lists, one of US and Canadian librarians, and one including the entire international listing. I send the message to one or the other list depending on either the request of the sender or on my estimation of the most appropriate distribution. Most of the items in this column started life as ASTROLIB messages. Messages are sent as received, so sometimes there are a lot in a short time period, and sometimes a long time goes by between them.

News from Joyce Watson:

This is to let you know that I stepped down from the Head Librarian position here at the Center for Astrophysics on November 30, 1990. After 21 years, it is time for a change!

Donna Coletti has been appointed Acting Head Librarian—I think many of you met her at SLA in Pittsburg. We are all wishing her the best of luck. She may be reached at (617) 495-7289, or by e-mail at coletti@cfa.harvard.edu. Our fax remains (617) 495-7199.

No, I am not retiring! I hope to spend my time on SIMBAD and similar astronomical projects. You can reach me at the same old number, (617) 495-7264, or joycemr@cfa. Please address library requests to Donna, and the SIMBAD and "miscellaneous" to me.

Incidentally, a note to people who are so kind as to send us copies of acquisitions lists, want lists, etc. Please send only one copy—the CfA is one library, and address them to "Librarian."

I hope to see you at SLA in San Antonio.

News from Sarah Stevens-Rayburn:

Barbara Snead of the ST Sci Library has put together an interesting analysis of journal cost comparisons for the period 1983-1991. Although limited primarily to astronomy and astrophysical titles, the numbers are useful for planning purposes and seeing which journals bear monitoring more closely. The percentage changes from 1983 to 1991 are especially interesting; e.g., Optical Society of America journals have increased 452%, while the RAS

has held to a (comparatively) respectable 79%. For a copy of the full chart, contact me, specifying whether you want it electronically or in paper. In addition, I have updated copies of the *IAU Colloquia* list and the Meetings From Preprints list for those seeking acquisitions information on astronomy proceedings.

News from Cathy Van Atta:

I was recently asked how much *Astronomische Nachrichten* is used in our library and in other astronomy libraries. Evidently with the political changes in Germany there will have to be changes made in publishing arrangements for things from formerly-East Germany which were state subsidized. A visiting astronomer from Germany said he had received a request from a publishing company to get some idea of how much this publication is being used—evidently to find out whether it is worth while to continue with it. I will pass along all comments or information to him and so would appreciate any replies. Thanks.

I will be chairing the Astronomy Workshop at the meeting in San Antonio in June and would like to hear your suggestions either for the type of agenda or for specific subjects to be included. Possibilities include new or interesting things you have done in your library (or if you know of someone else who has), problems you would like discussed, news to convey, or ?????? This is our once a year chance to bring our common concerns together in a group so please let me know what you feel would be most helpful or what you can share with the rest of us.

Contact: Cathy Van Atta/Library/  
Kitt Peak National Observatory/PO Box  
26732/Tucson, AZ 85726/(602) 325-9295/  
FAX: (602) 325-9360/library@noao.edu.

### Notice of Missing Pages

From Brenda Corbin:

One of our staff members has discovered missing pages in *Astronomy and Astrophysics*, v.233, No.1, July (I) 1990. In our copy, pages 275-290 are missing. I called

Springer-Verlag NY at (201) 348-4033, ext. 307 and they will replace the issue, which should arrive in 6 to 8 weeks.

From Marlene Cummins:

Our most recent copy of *Astrophysical Journal* (v.367 No.2 Pt.1) is missing pages 441-472 incl.

From Sarah Stevens-Rayburn:

Our copy of *ApJ* 368 #1 is missing pages 255-294.

From Sarah and from Ellen Bouton:

We both received soft cover copies of *IAU Symp.* 143 whose pages began to fall out when the volume was first opened to scan title page and table of contents. If this happens to your soft cover volume, contact Kluwer for a replacement. Phone number for US office in Norwell MA is (617) 871-6600; ask for Linda in customer service.

Ellen Bouton

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### MATHEMATICS NEWS

At the 1991 AMS/MAA Joint Meetings held in San Francisco the Association of Research Libraries was asked by the American Mathematical Society to sponsor a meeting on "Delivering Information to Researchers: Opportunities and Impediments." Despite the awful timing of the session, 6-8 PM on Friday, January 18th, a good sprinkling of mathematicians was in the audience as well as mathematics librarians from the University of Washington, UCLA, Stanford, UC-Berkeley, and the Mathematical Sciences Research Institute in Berkeley. The four speakers, Ann Okerson (ARL), Nancy Anderson (math librarian at University of Illinois), Jerry Janusz (Executive Editor of *Math Reviews*), and Dick Askey (math professor at University of Wisconsin) gave presentations which are highlighted below.

Ann Okerson spoke persuasively of the price increase studies made by the Association of Research Libraries. She said that

as we support the core materials our libraries are becoming more homogenous. Scholarly information could be viewed analogously to government information and not be treated as a trade commodity. While 90% of all articles eventually get published, 50% or more of the articles go uncited within 5 years.

Authors need more awareness: hard data on journal pricing can be used to bring pressure on publishers to be more consumer conscious and scholars can say no to serving on editorial boards of high priced or low quality journals. The best hope lies in university-based networks and NREN. Ten percent of ARL's budget is being used for the ARL Office of Scientific and Academic Publishing, which is trying to improve means of communication throughout the country.

Nancy Anderson added that in addition to the dramatic increases in prices, most math librarians were facing the prospect of journal cancellations this year because of decreased institutional support. This is occurring even in the libraries of "last resort" so it will also affect the smaller institutions which depend upon them.

Access, and not ownership, is being used to justify cancellation. However, mathematicians look upon the depth and breadth of their library collection as a necessary component of the research environment. Librarians need to know more about how mathematicians use libraries and seek information in order to reconcile providing access to the information and providing a useable research collection.

In providing more rapid access to information, we could consider utilizing MathDoc (if the copies are better) or our own informal contacts (e.g., PAMnet) to a greater degree, demanding that our library administrations provide more effective and faster ILL through FAX, and using the new AMS electronic network, e-Math.

Mention was made of the increasing reliance on electronic tools: networks such

as Yale's instant math preprint project and Purdue's complex variables preprints, online catalogs, and CD-ROMS. However, MathSci Disc needs to be updated more often. Only a few institutions can mount MATHSCI ONLINE as part of their online catalog or campus information network as the cost is still high (even with the special deals). The University of Illinois will be mounting CURRENT CONTENTS soon as part of an enhanced online catalog so we will have access to the 115 most cited math journals.

In providing a better research environment, we may have to consider cancelling prestigious but lesser used titles or outrageously priced titles. Assistance from the mathematics departments is essential. They should be encouraged to make the library the beneficiary of the journals received on institutional memberships, to develop a strong library committee or faculty liaison to help with building support, and to consider raising funds either for an endowment, e.g., Cornell, or a current income fund (for journals), e.g., Illinois.

Two articles are recommended reading: David Mermin's article in the August 1988 *Physics Today* called "What's wrong with this library" and Richard Dougherty's point-of-view, "Librarians must have the authority to cancel subscriptions to seldom-used journals", in the January 9, 1991 issue of the *Chronicle of Higher Education*.

Jerry Janusz then spoke about the challenges of a society publisher. He spoke of some new monograph and proceedings series which are due to come out this year from the AMS (groan!): Reprint Series, DIMACS (Discrete Math & Theoretical Computer Science), Graduate Studies in Mathematics (graduate level classroom texts) and Israel Mathematical Conference Proceedings. Jerry reminded us that the mathematics literature doubles every 10 years and that in 1990 *Math Reviews* published 55,000 reviews!

He spoke more of e-Math. It was begun in October 15, 1990 and now has 1500

signups. Currently it contains TEX public domain software, the AMS/MAA/SIAM combined membership list, the 1991 subject classification, and Instant Math Preprints (IMP). (Nancy has a copy of the IMP User's Guide.)

Jerry predicted that a system based on the IMP idea will become the communication of choice in the not-too-distant future (5 years??). Jerry elaborated on the advantages to using MathDoc (see above): e-mail requests are accepted daily and processed in 3 business days or less. MathDoc provides access to 120,000 items available from Soviet journals plus over 700,000 items available from all (non-monograph) sources.

In Jerry's view the problems in providing information are: (1) how to determine which products are most needed and wanted by the scientific community, and (2) how to balance distribution of information between print and electronic media and how to price each to ensure their survival. Jerry said that databases are very expensive to produce and maintain, and that they cannot be supplied to the user at no cost.

Jerry speculated that new technology such as (1) electronic submission of manuscripts, (2) widespread use of TEX for author-based documents in final form, (3) use of optical scanners to prepare archival material for databases, and (4) greater use of electronic distribution of manuscripts can reduce production costs. Eventually, he predicted, print media might even disappear!

Dick Askey concluded the presentations by noting that space is one of the most serious problems of libraries. If books and journals are in storage, they are inaccessible. He recommended using compact shelving instead. He questioned how we could go about transferring materials to another media when we are not good judges of knowing WHAT will be important. Electronic systems deteriorate even faster than paper.

Dick also asked if the AMS shouldn't

look into the question of publishing specialized journals as AIP and SIAM do. He believes that there are too many conference proceedings many of which are junk—should the same article appear in a proceedings and a journal? He reminded us that we are building libraries of the future. Public libraries also need to be better as these are often the first places where young people discover the collected works of some mathematician, get "turned on" to mathematics, and thus become the math professors we eventually see in our libraries.

In the question-answer period following, Keith Dennis (head of the math department at Cornell) spoke about some new developments. RLIN will make MATHSCI ONLINE (titles only) available. (This won't help the OCLC libraries much, but let's hear it from the RLG libraries as to how used it is!) Xerox Corp. and Cornell's Committee on Preservation and Access have a project to scan, store electronically, and reprint pre-1915 books on acid-free paper. The subject area picked is mathematics and will cover about 500 titles (with a grant proposal for another 800). In the late 19th and early 20th centuries, many Cornell mathematicians had trained in Germany so they had lecture notes by Klein, Hilbert, etc. The project is looking into how they might distribute these reprints: electronically at low cost to all or in a paper format to libraries. Since many of us probably have the same brittle books, this might be a good way to replace parts of our collection.

Another Cornell/Xerox project involves developing optical character recognition software. Dennis also mentioned that way Cornell raised a \$500,000 endowment by having the faculty match an outside donor's pledge. Faculty members volunteered to teach an extra course and then turned over the money earned. This money had previously been spent to hire outsiders.

Afterwards, several of the mathemati-

cians said they welcomed the opportunity to have librarians attend the AMS-MAA meetings to talk about problems of mutual concern and they hoped that we would come to next year's meeting in Baltimore.

Nancy Anderson

### Math Materials Needed

A young math department of more than 60 members would appreciate donations of journals, textbooks, books, periodicals, dictionaries, tables, and handbooks for its library. The library has a very small budget and could no longer afford *Math Reviews* after 1984. The library also collects in computer science. Unfortunately, they cannot reimburse for shipping charges, but could send receipts for income tax purposes. Please send to: Abdelhaq Nadire/Département de Mathématique et d'Informatique/Faculté des Sciences/Rabat, MOROCCO.

If questions, please call Christine Bain /Associate Librarian/NY State Library/Science, Health Sciences and Technology Reference Services/Cultural Education Center/Albany, NY 12230/(518) 474-5957.

### NEW BUDGET SURVEY

The new fiscal year brings many librarians to tears, what with so many decisions to be made and so little concrete information. In the spirit of cooperation, I am once again willing to serve as the coordinator for PAM materials budget information. Just as we did last year (and hopefully with a better response rate), I will create lists of Physics, Astronomy, Math budgets from the data provided by individual librarians.

This information was shared amongst interested PAM members last year, although it was not published in the newsletter since some budget information was

considered confidential. If you submit data this year, please indicate if the data can be published in the newsletter, and/or if you prefer that the data not be identified by name. (I was able to use budget figures from five other (un-named) libraries that were given larger budgets than myself to justify my requests for additional funds.)

The categories are listed below. Please identify the final date for expenditures. Feel free to update this information as your new budgets are determined.

### PAM BUDGET SURVEY

#### Materials Funds

#### Total:

Physics  
Astronomy  
Math

#### Periodicals:

Physics  
Astronomy  
Math

#### Contins/Standing Orders: (if separate from Periodicals)

Physics  
Astronomy  
Math

#### Monographs: (If approval plan used, indicate amount approval vs. amount firm order)

Physics  
Astronomy  
Math

#### Any other funds: (i.e. Trusts, Dept gifts, etc.)

#### Online Funds

Ready Reference:  
Cost Recovery:  
Other (flat-fee, CD-ROM):

#### Student Worker Funds

Total dollars allocated:  
(Do NOT include support staff)

Send information to: Dave Stern/Physics-Astronomy Library/204 Loomis Lab/1110 W. Green St. /University of Illinois/Urbana, IL 61801/(217) 333-2101/stern@uiucvmd.

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**MEMBERSHIP NEWS**
**New Members:**

Brownridge, Ina C.  
 SUNY—Binghamton  
 Telecommunications Project  
 Science Bldg. III  
 Binghamton, NY 13901  
 (607) 777-6352

Weiner, Suzanne T.  
 M.I.T. Science Library 14S-M32  
 160 Memorial Drive  
 Cambridge, Mass. 02139  
 (617) 253-9320

**Address Changes:**

Bryson, Liz  
 Internet: library@cfht.hawaii.edu  
 Bitnet: library@UHCFHT  
 Span: UHCFHT::library

Coletti, Donna  
 Acting Library Director  
 The Library MS56  
 Harvard-Smithsonian  
 Center for Astrophysics  
 60 Garden Street  
 Cambridge, MA 02138  
 (617) 495-7289  
 Fax: (617) 495-7199  
 Internet: colletti@cfa.harvard.edu

Croneis, Karen S.  
 Washington University  
 Olin Library  
 Campus Box #1061  
 St. Louis, Missouri 63130  
 (512) 471-7539

Kreunen, Julie A.  
 SSC Laboratory, Mail Stop #2010  
 2550 Beckleymeade Ave.  
 Dallas, TX 75237  
 (214) 708-6095  
 Fax: (214) 708-0016  
 Bitnet: kreunen@sscvox1

Reichardt, Randy  
 Internet: rreichar@vm.ucs.ualberta.ca  
 Bitnet: rreichar@ualtavm

Willard, Beth R.  
 1887 Greenfield Ave., Apt. #203  
 Los Angeles, CA 90025  
 (213) 825-7734

Total membership as of  
 January 20, 1991 is 166 members.

**Helen Knudsen**

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**Math Job at Columbia**

**MATH/SCIENCE LIBRARIAN, COLUMBIA UNIVERSITY.** Duties include collection development for Math, History of Science, and General Science materials; formulating/monitoring budgets; selecting & deselecting; making preservation decisions; serving as liaison with faculty, and students. Librarian provides reference & database search services, and bib. instruction (may also provide these services in other science libraries if needed).

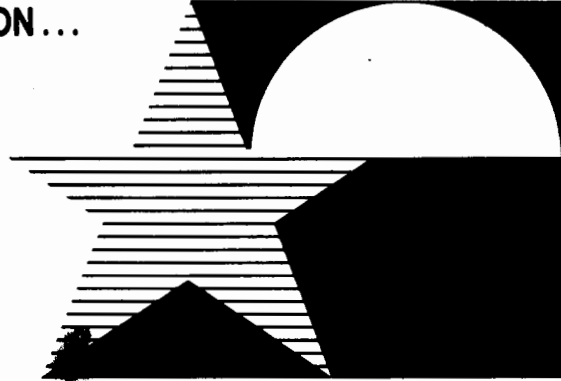
Requirements are: accredited MLS, understanding of scholarly communication in the sciences, ability to work effectively with faculty, students & staff in demanding setting. Superior communications skills essential. Subject background in mathematics or related discipline, relevant experience in an academic library, and knowledge of traditional and electronic information sources preferred.

Salary range (will increase 7/1/91) is currently \$27,500 to \$39,825. Excellent benefits include assistance with University housing and tuition exemption for self and family. Send resume and a list of names, addresses and phone numbers of 3 references to: Kathleen Wiltshire, Director of Personnel, Box 35 Butler Library, 535 West 114th Street, NYC, NY 10027. Deadline for applications is 4/30/91.

Columbia University is an Affirmative Action/Equal Opportunity Employer.

**MASTERMINDING TOMORROW'S INFORMATION ...**  
**Creative Strategies for the '90s**

**Special Libraries Association**  
**82nd Annual Conference**  
**San Antonio, Texas**  
**June 8-13, 1991**



Murdoch  
Mathematics Research Library  
University of Washington, GN-50  
Seattle, WA 98195



475142  
John W Weidel II  
Univ of Michigan  
Phys-Astron Libr  
240 Dennison Bldg  
Ann Arbor MI

2/91

48109

*international*

**SPECIAL**  
**LIBRARIANS DAY**

*april 18, 1991*