

## THE NEWSLETTER OF THE MATHEMATICAL ASSOCIATION OF AMERICA

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# **NSB Commission on Mathematics** and Science Education Established

he National Science Board (NSB) has established a Commission on Pre-College Education in Mathematics, Science, and Technology. This action was taken by NSB in response to a rising national tide of concern about the quality of pre-college science and mathematics education.

The new commission, proposed by NSF Director John Slaughter last summer, was approved in principle by NSB in November. During the months of December and January, National Science Foundation staff members, in consultation with the Council of Scientific Society Presidents (CSSP), MAA, and other mathematical and scientific societies, developed a plan for implementation of the Commission.

A plan for a possible Presidential Commission developed in Spring 1981 by a CSSP panel chaired by MAA President

Richard D. Anderson was used as background material in the design of this commission and in the drafting of its charter. The CSSP plan suggested that efforts to improve secondary education be focused on local school boards and state education agencies. It proposed that mathematical and scientific societies, under the leadership of CSSP, insure effective two-way communication on problems and procedures. The National Science Board adopted the CSSP approach, while recognizing that it represents a new style of operation for the Foundation.

There will be 15 members on the Commission. They will include individuals of national status in mathematics, various scientific disciplines, and mathematics and science education. Eminent non-scientists and industrialists will also (continued on page 2)

# California Governor Urges Increased Commitment to Mathematics and Science Education

n his State-of-the-State address last January, Governor Edmund G. Brown issued an urgent call for increased support of mathematics and science education, claiming that unless action is taken to augment the 3 R's with the 3 C's (computing, calculating, and communication through technology), "succeeding generations will inherit a society stagnating in the aftershocks of massive foreign imports and obsolete industry." Governor Brown stated that nearly 40% of the new jobs in this decade will depend directly or indirectly on high technology industries and that tens of millions of jobs throughout the nation "will be rendered obsolete and those holding them will have to be retrained for work that will often require technological literacy."

In his address, Governor Brown called for dedication to three goals:

 A minimum of three years of mathematics and two years of science for every California high school student with even more for college-bound students.

- Increased support for engineering, computer science, and related science instruction in the California university systems.
- Additional support for vocational education through community colleges and adult education programs.

Included in his proposed 1982-83 budget is special funding for training teachers in mathematics, science, and computer instruction as well as new textbooks, materials, and equipment.

According to Brown, "Electronics, computers, satellites, biotechnology, robotics—these are no longer dreams. They are the driving imperative that is restructuring the world economy. These new technologies are fundamentally changing our communications, agriculture, environment, schooling, financial institutions, family life and our national security... If we ever needed a counteracting cause, a challenge, this is it. For our prosperity—even our survival—depends on our will to invest in people."

## Commission (continued from page 1)

be included. The members of the Commission will be named late in March. Shortly thereafter, the Commission will meet to organize itself. It is envisioned that the Commission will work intensively for approximately one year and then begin a series of meetings in selected localities across the country.

A coalition of scientific societies, professional organizations, and industrial concerns will seek information for the Commission and attempt to establish, in as many school districts as possible, groups that are willing to promote mathematics and science in their schools. MAA members interested in participating in this important grassroots effort should contact MAA Associate Director, Marcia Peterson Sward, at the Washington Headquarters.

## Sloan Foundation Plans Program to Foster Mathematical Methods in the Liberal Arts

During the past year, the Alfred P. Sloan Foundation has hosted a series of four conferences to give Sloan officials the opportunity to meet with administrators and faculty in arts and sciences concerning the Foundation's proposal entitled "The New Liberal Arts." The aim of this proposal is to encourage liberal arts colleges to make increased literacy in mathematical, computer, and technological methods a major goal of the general curriculum. Conference activities centered on helping Sloan clarify its ideas in this area and developing strategies for effective funding.

According to Stephen B. Maurer of Swarthmore College, who will go on leave during the next academic year to work for Sloan primarily on this program, "The New Liberal Arts" is aimed at liberal arts institutions as a whole, not at individual departments. A large amount of the funding will probably go for release time for faculty in social sciences and humanities so that they may retrain in quantitative methods and develop new course materials. Some money will also go to help mathematics departments provide the broad variety of necessary support courses. In any event, since the current centers of strength in the burgeoning use of quantitative methods are mostly universities, collaboration between liberal arts colleges and universities will be one of the mechanisms encouraged to advance the purposes of this program.

As of early February, Sloan had not yet made final decisions on what sort or size of proposals to call for, or when to call for them. For further information, readers may write to the Alfred P. Sloan Foundation, 630 Fifth Avenue, New York, NY 10111.

# SAT Scores Hold Steady for First Time in 14 Years

For the first time since 1968, average Scholastic Aptitude Test (SAT) scores for the nation's college-bound high school seniors did not decline in the school year ending in 1981. Both the verbal and the mathematics scores remained at 1980 levels of 424 and 466, respectively. The corresponding scores in 1968 were 466 and 492.

Students' interests and plans over the last several years have shifted away from the liberal arts and service professions to fields such as business and commerce, engineering, and computer science. Growth in interest in computer science/systems analysis has more than tripled since 1975.

# Ford Foundation Launches Program to Aid Minorities

After an eighteen-month investigation, the Ford Foundation has come to the conclusion that "the entire system of mathematics education in the United States needs radical reform—in the way mathematics is presented, the number and kind of courses offered, and in the training of teachers, especially in the elementary and high school grades."

Because the Foundation found problems with mathematics to be especially acute among Afro-Americans, Puerto Ricans, Mexican Americans, and Native Americans of both sexes, and among women, it has made grants totalling some \$1.1 million to address the special needs of these groups. It is hoped that the lessons derived from new approaches developed in a variety of projects will also contribute to the improvement in mathematics achievement among American students generally.

The grants went to the following institutions: Dartmouth College, Fisk University, Xavier University, Lincoln University, University of New Mexico, Tuskeegee Institute, Phillips Academy (Andover), a consortium of six community colleges on the U.S.-Mexican border (Southwestern College, Imperial Valley College, Arizona Western College, Cochise College, Laredo Junior College, and Texas Southmost College), and the American Association for the Advancement of Science.



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Editor: Marcia Peterson Sward, MAA Associate Director. Associate Editors: Charles A. Cable, Allegheny College; James R. C. Leitzel, Ohio State University.

Chairmen of the MAA Newsletter Editorial Committee: J. Arthur Seebach and Lynn Arthur Steen, St. Olaf College.

Readers are invited to submit articles, announcements, or Letters to the Editor for possible publication in *FOCUS*. All materials should be sent to the Editor at the MAA Headquarters in Washington, D.C. For the policy statement on Letters to the Editor, see the November-December 1981 issue of *FOCUS* or write to the Editor.

The annual subscription price for FOCUS to individual members of the Association is \$1, included as a part of the annual dues. Annual dues for regular members (exclusive of annual subscription prices for MAA journals) are \$20. Student, unemployed, emeritus, and family members receive a 50% discount; new members receive a 30% discount for the first two years of membership.

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## The Monthly and me

P. R. Halmos

The author is Distinguished Professor of Mathematics at Indiana University and the new editor of The American Mathematical Monthly. He was invited by the FOCUS editor to share with FOCUS readers some of his hopes and plans for the Monthly. This article was written last December.



What are the problems? Did you know that 70% of the articles submitted for publication in the *Monthly* are rejected? I learned that fact from my predecessors; I myself haven't been at it long enough to gather convincing statistical data. I have been soliciting, receiving,

accepting, editing, and sometimes rejecting *Monthly* articles for about eight months only—but that's long enough to have served as an eye-opener about the quantity and the quality of the papers that people send in.

Usually the *Monthly* receives about 100 to 120 articles a year and publishes 30 to 40 of them. In my first eight months I received 113 articles. I accepted 14 of them and rejected 64; the rest are still in the pipeline.

There have been some multiple submissions (authors sending the same article to two or more journals at the same time, hoping thereby to increase chances of acceptance and speed up the publication process). Journal editors think that's immoral—it multiplies the number of man-hours that (unpaid, volunteer) referees spend on the job by a factor of two or more, it increases postage and stationery costs, and sometimes it makes for double publication (the same words appearing in two different journals), and *that* is a waste of expensive paper, print, energy, and journal space.

Some authors regard editors and referees as their private proof-readers and mathematical consultants. One recent cover letter, for instance, said that if the referee thinks the paper might be of interest to the readers of the *Monthly*, then the author will "adapt the present version to the pedagogical style of the *Monthly*". My own suspicious interpretation: submitted to another journal as research, the paper was rejected, and the author is now trying to "lower his sights" without, however, investing any effort in doing so till he is assured that his pig will be bought in the poke.

Some of the papers I received have been astonishingly inappropriate. Some, for instance, were research reports (and that's not right for the Monthly), one was a highly technical and frightening long survey of the desingularization of plane curves (105 typewritten pages), several were by cranks (duplication of the cube, proof of Fermat's last theorem), some seemed to be written by outright psychotics (frantic telegrams followed by sheets of paper with incomprehensible strings of words on them, including "plane" and "fourcoloring"), some were by amateurs who didn't know the literature (one might have been a partial rediscovery of quaternions), some were too elementary or too special (how to take the cube root of a number given in decimal notation, how to solve the general cubic equation), and some seemed to be just nonsense ("... by the concept of singularity we mean something which is complete in itself, without any of it being not a part of the totality of the singularity, in the form of an excess, or as a deficiency in its parts"). Fortunately, the same mail that brings papers like these also brings the gems—the papers that are just right for the *Monthly*. Those are my reward.

Who handles them? The Monthly has several "departments", and they are run almost independently of one another. MATHEMATICAL NOTES and CLASSROOM NOTES used to be two that were hard to tell apart-I put them together as NOTES, and that department is now almost a journal in its own right. I don't usually know who submitted what to the NOTES editors and how much of a backlog they have. From time to time I get complaints from a NOTES author asking why his note hasn't appeared yet, but all I can do is transmit the complaint to the editor in charge. The same is true about THE TEACHING OF MATHEMATICS, formerly MATHEMATICAL EDUCATION. (I wanted to make a point by having "mathematics" as the principal noun, not "education".) The editor-in-chief has influence on all departments, to be sure, and consults with all associate editors, but he does not control them, and he certainly has nothing to do with their day-to-day operation. If you, as an author, write to one of us and are referred to another, you are not necessarily getting the run-around-you're just encountering a reasonably smoothly functioning instance of division of labor.

Who reads the Monthly? Answer: different kinds of people, including bright high school students, hard-working college teachers, beginning graduate students, and high-powered research mathematicians. The result is that almost everything that appears in the Monthly gets severely panned. The criticisms go from "that stuff is too fancy" to "that stuff is too trivial". Either "it's abstract nonsense, of no use to me as a teacher of calculus or computer science", or "it's not mathematics, it's old stuff, and I can't waste my time on such elementary junk". A snobbish employee of an industrial corporation was described to me as one who "has extremely high standards and does not regard the Monthly as worth reading". I consider that a gigantically offensive non-sequitur—but I mention it to illustrate the difficulties the magazine faces.

What can I as editor of the Monthly do? Obviously I must try to know the wishes of the readers and listen to their requests, but I think I must be more than a clerk who counts heads and then proceeds statistically, publishing 18.3 articles on teaching, 24.9 on research, etc. Each editor must exercise judgment and use taste—a personal matter—and it follows that the magazine can be expected to change as editors change.

Some editors edit locally (change words, insert commas, permute paragraphs, supply references), some edit globally (solicit certain kinds of articles and reject others, establish new departments and abolish others), and the ideal editor perhaps does both. I tend to be more the global kind—by which I mean that I tend to leave details to the author, and don't get upset if the result has a foreign accent, or if the punctuation style of one paper is different from that of another.

What will it be? What will the Monthly be under my editorship? Answer: pretty much the same as it has been, but different in some details.

The most obvious detail, which of course you have noticed already, is the cover. A lot of people have asked me why the color has been changed so often. The question reveals a less than perfect power of observation. To be sure, Harley Flanders changed the color when he became editor in 1969—the old blue became white—but then things remained static till

(continued on page 7)

# Highlights of the Board of Governors' Cincinnati Meeting

### **Membership Dues**

There will be no overall dues increase in 1983. There will, however, be an increase of \$3 (\$1 for students) for members selecting the *Two-Year College Mathematics Journal* (TYCMJ). This increase reflects the fact that the number of pages published in TYCMJ annually will be increased by approximately 25% in 1983.

The new dues matrix will include a column for members selecting *Mathematics Magazine*, a new membership option starting in 1983.

## **Student Prizes for Papers at Section Meetings**

Up to three MAA memberships per Section per year may be awarded by Sections as prizes for student papers presented at Section meetings. If the prize winner is already a member, an MAA book may be awarded instead of the membership. Each Section is to establish the rules by which these prizes are to be administered.

#### **American Invitational Mathematics Examination**

A new intermediate examination, the American Invitational Mathematics Examination (AIME), to be taken by several thousand top scorers on the Annual High School Mathematics Examination, was approved by the Board. The purpose of this examination is to bridge the gap between the Annual High School Examination, which is taken by over 400,000 students, and the USA Olympiad, which is taken by only 150 or so students. Further information on this examination will appear in the September-October 1982 issue of *FOCUS*.

### **Resolution of Appreciation for MAWIS Leaders**

The Board adopted a resolution of appreciation for the leaders of the MAWIS (Mathematics at Work in Society) project which states, in part, "The Board recognizes that these materials may be the most effective ever published by the Association for convincing junior and senior high school students of the importance of adequate and early study of mathematics. The good service of these MAWIS leaders to the Association is therefore equally good service to our nation and the next generation of its leaders". The leaders of the MAWIS project are John M. Jobe of Oklahoma State University, Susan J. Devlin of Bell Laboratories, James R. Choike of Oklahoma State University, and Donald B. Small of Colby College.

## **New CBMS Constitution**

The Board approved a new constitution for the Conference Board of the Mathematical Sciences (CBMS) which will transform CBMS into an organization of presidents of mathematical organizations similar to the Council of Scientific Society Presidents.

## **Grants and Bequest**

The Board gratefully accepted four grants and one pequest:

 \$102,915 from the Department of Education in support of the Blacks and Mathematics (BAM) program.

- Grants of \$12,500 from the IBM Corporation, \$5000 from the George I. Alden Trust, and \$750 from John Hancock Mutual Life Insurance Company for support of the Women and Mathematics (WAM) program.
- A bequest of \$5000 from the estate of L. Aileen Hostinsky of Connecticut College.

#### **Greater MAA Fund**

The Board approved establishment of an annual fund, to be called the *Greater MAA Fund*. This fund will be used to provide much-needed supplementary support for Association activities and projects. Fund-raising activities will be initiated in Spring 1982.

## Contributed Papers and Other Innovations Planned for Toronto Meeting

## Joint MAA-AMS Program

At the Toronto meeting in August 1982, the programs of the MAA and the AMS will, for the first time, be scheduled to run concurrently and simultaneously. This experiment is being conducted by the MAA and AMS in an effort to schedule activities of interest to all meeting attendees at all times during the meeting.

Certain important events, such as major addresses and prize sessions, will be scheduled with no conflicting events. There will also be some sessions in the program jointly sponsored by both organizations.

## **Contributed Paper Sessions**

Papers will be accepted on various topics in collegiate mathematics for presentation in contributed paper sessions. The topics selected for this meeting are:

- · The undergraduate mathematics curriculum
- Special concerns: Remediation, Articulation, and Math Anxiety
- The use of computers in undergraduate mathematics instruction
- Classroom Notes

Presentations will normally be limited to ten minutes, although selected contributors may be given up to twenty minutes.

Individuals wishing to submit papers for any of the sessions at the Toronto meeting should send the following information to the MAA's Washington Office (Mathematical Association of America, 1529 Eighteenth Street, N.W., Washington, D.C. 20036) before June 7, 1982:

- 1. Title
- 2. Intended session
- 3. A one-paragraph abstract (for distribution at the meeting)
- 4. A one-page outline of the presentation
- 5. A list of special equipment required for the presentation (e.g., computer, movie projector, videotape player).

This information will be sent to the organizer of the designated session who will arrange for refereeing. Selection of papers will be announced by July 15, 1982.

## **Films and Videotapes**

The usual one-to-three hour showings of mathematical films and videotapes will be replaced by continuous showings. MAA members are invited to submit for showing in Toronto films or videotapes which they have created for classroom or other use. Contact: Professor Edward J. Barbeau, Department of Mathematics, University of Toronto, Toronto, (M5S 1A1), Ontario, Canada.

## Looking for Outstanding Students to Recruit for Your College?

A number of colleges and universities are using National and Regional Summaries of the results of the Annual High School Mathematics Examination (AHSME) to identify prospective students with outstanding mathematical talent. Some colleges even offer scholarships to students on the basis of their performance on the Examination. At some institutions, members of the Mathematics Department are directly involved in contacting these students and in providing them with information about their mathematical sciences program. The Committee on High School Contests, which administers the Examination, wishes to encourage other institutions to make similar use of AHSME Summaries as a means of strengthening mathematics and mathematical sciences departments.

The Examination is given each year in March. Last year, over 422,000 students from nearly 7,000 high schools in the United States and Canada and approximately 15,000 students from 11 foreign countries took the exam.

The National Summary, which is published each June, contains the Individual Honor Roll, Student Merit Roll, and the names of Gold, Silver, and Bronze Medal Recipients. Regional Summaries, compiled individually by Regional Coordinators, often contain Regional Honor Rolls listing additional students from their area who performed well on the Examination.

To order a copy of the National Summary (\$1.50) and to obtain the address of the Regional Coordinator for your area, write to Professor Walter E. Mientka, Executive Director, MAA Committee on High School Contests, Department of Mathematics and Statistics, University of Nebraska, Lincoln, NE 68588.

## In Memoriam

**Kermit Friedland** of Essex County College died in May 1981 at the age of 62. He was a member of the MAA for nine years.

**Glenn A. Gilbert,** retired from Boulder Valley Schools in Boulder, Colorado, died April 9, 1981 at the age of 59. He was a member of the MAA for 24 years.

The Association has also been informed of the deaths of the following individuals: **Sam W. McInnis** of Gainesville, Florida, an MAA member for 47 years; **Cecil G. Phipps** of Nashville, Tennessee, an MAA member for 49 years; **Selby Robinson** of Laguna Hills, California, an MAA member for 50 years.

## MAA Officers Elected

Ivan Niven of the University of Oregon has been elected MAA President-Elect. He will serve one year as President-Elect, two years as President, and one year as Past-President.



Professor Niven is well-known to MAA members through his books and papers, service on MAA committees, and other professional activities. He is the author of three books published by the MAA—Numbers: Rational and Irrational (New Mathematical Library #1), Mathematics

of Choice (New Mathematical Library #15), and Irrational Numbers (Carus Monograph #11)—and a forthcoming volume Maxima and Minima Without Calculus (Dolciani Mathematical Expositions #6). He is also the author of some 70 papers, mostly on number theory.

After graduating from the University of British Columbia, Professor Niven received his Ph.D. from the University of Chicago in 1938. From there he went to the University of Pennsylvania on a post-doctoral fellowship to work with Hans Rademacher. His professional positions since then have included faculty appointments at the University of Illinois, Purdue University, and, from 1947 to the present, the University of Oregon. He spent the academic year 1964-65 as a Visiting Professor at the University of California, Berkeley, and two summers at Stanford University.

Niven's service to the MAA includes a term as First Vice President (1974-75), service as an Associate Editor of the Monthly (1957-61), a term as Pacific Northwest Governor (1979-82), and extensive service on the Publications Committee and many other committees of the Association. Niven was the Earle Raymond Hedrick Lecturer at the 1960 Summer Meeting, speaking on "Some Aspects of Diophantine Approximations."

Ronald L. Graham of Bell Telephone Laboratories has been elected to a two-year term as First Vice President of the Association. Dr. Graham received a B.S. degree in Physics



from the University of Alaska in 1959 and a Ph.D. in number theory under D. H. Lehmer from the University of California at Berkeley in 1962. He went to work for Bell Laboratories immediately after receiving his doctorate and is now the Head of the Mathematical Studies De-

partment.

In 1975 Graham served as Regents Professor of Mathematics at the University of California at Los Angeles. In 1979 and again in 1981, he was Visiting Professor of Computer Science at Stanford University. Graham is the author or coauthor of three books published within the past year. He publishes about 15 scientific papers each year.

Dr. Graham has served on the MAA Committee on Corporate Members, CUPM, Panel on Applied Mathematics, and on the Editorial Board of *Mathematics Magazine*. He has been a frequent speaker at MAA national and sectional meetings. He has also been active in the Conference Board of the Mathematical Sciences, the American Association for the Advancement of Science, and the American Mathematical Society. He is now serving a five year term as a trustee of the AMS. Graham is also an editor or advisory editor for 20 different journals. The November 1981 issue of the *Two-Year College Mathematics Journal* featured Graham in an article by Gina Bari Kolata.

## MAA Membership at All-time High

The MAA passed a milestone in 1981. For the first time in the Association's sixty-six year history, membership topped 19,000. The exact number of MAA members, as listed in the 1981-82 Combined Membership List (CML), was 19,081. Furthermore, the MAA is still growing. Because new-member elections remained strong and retention of existing members improved during 1981, it is virtually certain that the 1982-83 CML will list more than 19,200 members.

Even more impressive has been the growth in Corporate Membership. As a result of a strong recruitment effort among publishing firms by the Committee on Corporate Members, the number of these members increased from 3 to 16 in 1981. Academic and University Membership also increased in 1981, growing from 456 to 463.

These numbers are encouraging and present a challenge to sustain this healthy growth. Members may help meet the challenge by inviting friends and colleagues to join and by sending the Executive Director at the Washington Head-quarters names and addresses of prospective members. Every person nominated by a member receives a cordial letter of invitation from an officer of the MAA.

## **People In The News**



Pasquale J. Arpaia, Professor of Mathematics at St. John Fisher College, has received the College's Award for Teaching Excellence. The Award is made annually to a member of the College chosen by a committee of faculty and students. In his twenty-three years of teach-

ing, Professor Arpaia has served at the high school as well as the college level. Throughout that time he has shown dedication to his subject and a strong degree of commitment to his students. Professor Arpaia's research interests are in abstract algebra and number theory and its history.

Robert P. Langlands of the Institute for Advanced Study in Princeton and Barry Mazur of Harvard University were recently presented with the prestigious Cole Prize in Number Theory by the American Mathematical Society. Professor Langlands received his award for pioneering work on automorphic forms, Eisenstein series, and product formulas. Professor Mazur was honored for his outstanding work on elliptic curves and Abelian varieties, especially on rational points of finite order.

The Cole prizes are awarded at five year intervals. The selections of recipients are based on the publication of an important research memoir within the five year period.

**Don Ornstein,** Professor of Mathematics at Stanford University, was elected to the National Academy of Sciences in Spring, 1981. He is a specialist in ergodic theory and has done major work concerning isomorphism of the Bernoulli shift.

Julia Robinson, Professor of Mathematics at the University of California at Berkeley, has been elected President-Elect of the American Mathematical Society (AMS). Professor Robinson is the first woman to hold that position in the history of the Society. She previously served a term as Vice President of the AMS in 1978-79. She is a member of the National Academy of Sciences.

Professor Robinson is most well-known in connection with Hilbert's Tenth Problem. The problem was to produce an algorithm to determine if a Diophantine equation with integral coefficients had integral solutions. She formulated a hypothesis which implied no such algorithm could exist. That hypothesis was subsequently proved. Her current research interests include recursive function theory and number-theoretic decision problems.

In the January-February issue of *FOCUS*, Joel E. Cohen was incorrectly listed as Chairman of the Board of Directors of the Society for Industrial and Applied Mathematics. Professor Cohen is Chairman, Board of Directors, SIAM Institute for Mathematics and Society.

## Short Courses on Computer Science and Problem-Solving Offered by MAA Sections

## Maryland-DC-Virginia

The Maryland-DC-Virginia Section will offer two Summer Workshops at Salisbury State College, Salisbury, Maryland:

"Algebraic and Symbolic Computing"

B. F. Caviness, Chairman, Department of Computer Science, University of Delaware
June 14-18, 1982

"Teaching Problem-Solving"
Alan Schoenfeld, University of Rochester
June 21-25, 1982

For further information, contact: Dr. B. A. Fusaro, Department of Mathematical Sciences, Salisbury State College, Salisbury, MD 21801.

#### Ohio

The Ohio Section will offer a Short Course entitled "Teaching Computer Science in a Mathematics Department," June 8-11, 1982, at Denison University, Granville, Ohio. There will be discussions with invited individuals and panels on most or all of the following:

- A review of ACM and CUPM recommendations
- Training needed for faculty
- Current computer science programs within mathematics departments
- The design of the first computer course
- Hardware
- Course offerings needed for business, industry, and graduate school.

The registration fee is \$30; board and room, including banquet and hospitality, is \$65. For further information, contact: Professor Andrew Sterrett, Jr. or Professor Zaven Karian, Department of Mathematics, Denison University, Granville, Ohio 43023.

## Wisconsin

The Wisconsin Section is sponsoring a workshop at Ripon College, June 23-26, 1982: "What Every Mathematician Should Know About Computer Science, and Vice Versa." For further information, contact: Karl A. Beres, Department of Mathematics and Computer Science, Ripon College, Box 248, Ripon, WI 54971.

#### Monthly (continued from page 3)

1978, when Ralph Boas made a radical change in both cover design and color policy. When it became my turn to make the decision, I conducted a small opinion poll and I interpreted the outcome to mean that my taste (in this instance) agrees with that of the majority. Conclusion: I decided to readopt one aspect of the old design (table of contents on the front cover), but maintain a convenient feature of Boas's policy, namely change color every year. That makes it easy for you to tell the years apart on your bookshelf.

The *Monthly* used to publish photographs, and I want to try to do that again. Is that a good thing? What do you think? If you don't approve, let me know; if you do approve, please send me some pictures that you think are appropriate.

My main guiding principle is to take the name of the magazine seriously: I should like everything in the American **Mathematical Monthly** to be **mathematical**. I know that that isn't possible, but I think it's a good target. Thus, for instance, I don't mean to exclude articles on history (of mathematics) and philosophy (of mathematics), but they had better be of genuine mathematical interest. I could not discontinue the apparently popular department of TELEGRAPHIC REVIEWS, or the lists of the referees thanked each year, or, with the solution of each problem, the list of the names of the people who solved it-but I could at least collect most of them in a CENTER SECTION on tinted paper in the middle of the magazine, where they are conveniently available, and easily removable. (Lists, incidentally, are my special bugbear. They are dull reading, and they tend to make for a dull magazine; I will exclude them whenever I can.)

The main positive principle is that the *Monthly* should be mathematical; the main negative one is that it should not be a research journal. For that reason some authors have the idea that the *Transactions* is a good journal and the *Monthly* a bad one. Once, as a referee, I rejected a paper for the *Transactions*, and, a while later, I rejected the same paper for the *Proceedings*, and after that, when the editor of the *Monthly* asked me to referee it too, I rejected it a third time. That should never have happened—no paper could conceivably be suitable for all three journals. The *Transactions* doesn't reject an article just because its exposition is superlatively clear (even if it seems that way sometimes), and the

Monthly can accept papers that contain deep new theorems—but the main aims of the two journals are the other way around.

My notion of a typical reader of the Monthly is someone who would like to know at least the name of most pieces of mathematics that were discovered and studied during the last ten years (or 50, or 100), but who has no intention of doing research in all of it (or perhaps in any of it). If you fit my mental picture, you want to be told that a certain subject exists and is considered important, you want to be told what it's called and who works in it, you would like to know the principal concepts that are used (a qualitative description, not detailed technicalities), and you want to know what its connection is with the rest of mathematics. An article like that can be written on any subject in somewhere between 5 and 15 printed pages—on finite simple groups, on bifurcation theory, on the Poincaré conjecture—and that's what you want (that's what I want!), along with shorter notes, problems, and ideas about teaching. Am I completely wrong?

What should it be? The last question was not intended to be rhetorical. What do you want the *Monthly* to be? Do you like some departments and hate others? Which ones do you want discontinued, and which ones strengthened? Would you like to see some new ones started? Would you, for instance, like to have letters to the editors? Would you like to have letters *from* the editors—that is, for instance, news about current backlog, contents of future issues, gossip about papers submitted, editorial expressions of opinions, reports of rumors about hot but not yet confirmed mathematical news?

Tell me—and I'll do my best.

P.S. Backlog is a very random variable influenced by the length of the Christmas vacation, the dilatoriness of referees, and the unpredictability of mail service. At the moment the backlog of the *Monthly* is zero.

In an August interview, Professor Halmos shared with Donald J. Albers, editor of the Two-Year College Mathematics Journal (TYCMJ), his thoughts on teaching mathematics, writing mathematics, and doing mathematics. An article based on that interview, "Paul Halmos: Maverick Mathologist," will appear in the June 1982 issue of TYCMJ.

## FOR STUDENTS AND TEACHERS . . .

Challenging problems from high school competitions in the United States and abroad. For problem solvers of all ages.

New Mathematical Library #5

### THE CONTEST PROBLEM BOOK I

Annual High School Contests 1950-1960 Compiled and with solutions by C. T. Salkind 154 pages. Paperbound.

LIST: \$7.50 MAA MEMBER: \$6.00

New Mathematical Library #17

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## Calendar

## **National MAA Meetings**

62nd Summer Meeting, Toronto, Canada, August 23-25, 1982 66th Annual Meeting, Denver, Colorado, January 7-9, 1983

63rd Summer Meeting, SUNY at Albany, New York, August 8-10, 1983 67th Annual Meeting, Louisville, Kentucky, January 27-29, 1984

## Sectional MAA Meetings

Allegheny Mountain Allegheny College, Meadville, Pennsylvania, April 30-May 1, 1982.

Florida Valencia Community College, Orlando, Florida, March 5-6, 1982. Illinois Southern Illinois University, Edwardsville, Illinois, April 30-May 1, 1982. Indiana Ball State University, Muncie, Indiana, April 24, 1982.

Intermountain Southern Utah State College, Cedar City, Utah, April 16-17, 1982.

Iowa Grinnell College, Grinnell, Iowa, March 26-27, 1982.

Kansas Emporia State University, Emporia, Kansas, April 2-3, 1982. Kentucky University of Kentucky, Lexington, Kentucky, April 2-3, 1982.

Maryland-DC-Virginia James Madison University, Harrisonburg, Virginia, April 17, 1982.

Metropolitan New York Courant Institute of New York University, New York, New York, May 2, 1982.

Michigan Calvin College, Grand Rapids, Michigan, May 7-8, 1982. Missouri University of Missouri, Rolla, Missouri, April 9-10, 1982.

Nebraska Kearney State College, Kearney, Nebraska, April 2-3, 1982.

New Jersey Georgian Court College, Lakewood, New Jersey, April 17, 1982. North Central St. John's University, Collegeville, Minnesota, April 23-24, 1982. Northeastern University of Maine, Gorham, Maine, June 18-19, 1982.

Ohio Capital University, Columbus, Ohio, April 30-May 1, 1982.

Oklahoma-Arkansas University of Arkansas, Fayetteville, Arkansas, March 26-27, 1982.

Pacific Northwest Western Washington University, Bellingham, Washington, June 18-19, 1982.

Rocky Mountain Western State College, Gunnison, Colorado, April 30-May 1, 1982

Seaway Skidmore College, Saratoga Springs, New York, April 23-24, 1982. Southeastern Emory University, Atlanta, Georgia, April 9-10, 1982.

Southern California California State Polytechnic University, Pomona, California, March 6, 1982.

Southwestern University of Arizona, Tucson, Arizona, April 2-3, 1982 Texas Lamar University, Beaumont, Texas, April 9-10, 1982.

Wisconsin University of Wisconsin, Fond Du Lac, March 26-27, 1982.

## Other Meetings

#### **MARCH 1982**

18-19. **Emmy Noether Centenary Symposium,** Bryn Mawr College. Sponsored by Association for Women in Mathematics. Contact: Rhonda Hughes, Department of Mathematics, Bryn Mawr College, Bryn Mawr, PA 19010 (215-645-5351).

## **APRIL 1982**

- 2-3. Discrete Geometry and Convexity Days, Mathematics Section, The New York Academy of Sciences. Contact: Matthew Katz, New York Academy of Sciences, 2 East 63rd Street, New York, NY 10021 (212-838-0230).
- 14-17. **60th Annual Meeting of National Council of Teachers of Mathematics**, Toronto, Canada. Contact: NCTM, Convention Department, 1906 Association Drive, Reston, VA 22091.
- 19-21. The Institute of Management Sciences/Operations Research Society of America Joint Meeting, Detroit, Michigan. Contact: ORSA, 428 East Preston Street, Baltimore, MD 21202.
- 22-23. 13th Annual Pittsburgh Conference on Modeling and Simulation. University of Pittsburgh. Contact: William G. Vogt, 348 Benedum Engineering Hall, University of Pittsburgh, Pittsburgh, PA 15261.
- 24. **Mathematics Learning Conference**, Rutgers University. Contact: Arthur Powell, Academic Foundations Department, Rutgers University-NCAS, Newark, NJ 07102.
- 26-30. NSF-CBMS Conference on Automorphism Groups of von Neumann Algebras and the Structure of Factors, University of Iowa. Contact: Paul Muhly, Department of Mathematics, University of Iowa, Iowa City, IA 52242.

## **MAY 1982**

17-21. Conference on Mathematical Models for Equitable Allocations, The Citadel. Principal speaker: William F. Lucas, Cornell University. Contact: M. G. Collier, Department of Mathematics and Computer Science, The Citadel, Charleston, SC 29409 (803-792-6983).

#### **JUNE 1982**

8-11. MAA Ohio Section Short Course—Teaching Computer Science in a Mathematics Department, Denison University, Granville, Ohio. (See Short Courses on page 6 of this issue.)

14-18. MAA Maryland-DC-Virginia Section Summer Workshop—Algebraic and Symbolic Computing, Salisbury State College, Salisbury, Maryland. (See Short Courses on page 6 of this issue.)

21-25. MAA Maryland-DC-Virginia Section Summer Workshop—Teaching Problem-Solving, Salisbury State College, Salisbury, Maryland. (See Short Courses on page 6 of this issue.)

23-26. MAA Wisconsin Section Workshop—What Every Mathematician Should Know About Computer Science, and Vice Versa, Ripon College, Ripon, Wisconsin. (See Short Courses on page 6 of this issue.)

28-30. 1982 National Educational Computing Conference, Kansas City, Missouri, Contact: E. Michael Staman, Campus Computing Services, University of Missouri-Columbia, 305 Jesse Hall, Columbia, MO 65211.

28-July 3. Second World Conference on Mathematics at the Service of Man, Las Palmas (Canary Islands), Spain. (FOCUS, September-October 1981)

#### **JULY 1982**

19-23. Society for Industrial and Applied Mathematics 30th Anniversary Meeting, Stanford University, Stanford, California. Contact: H. B. Hair, 117 S. 17th Street, Suite 1405, Philadelphia, PA 19103.

### **AUGUST 1982**

- 9-13. International Conference on Teaching Statistics, Sheffield, England. (FOCUS, September-October 1981)
- 11-19. International Congress of Mathematicians, Warsaw, Poland. (FOCUS, September-October 1981)
- 16-19. Institute of Mathematical Statistics Annual Meeting, Cincinnati, Ohio. Contact: American Statistical Association, 806 15th Street, N.W., Washington, D.C. 20005.
- 23-27. American Mathematical Society Summer Meeting, Toronto, Ontario, Canada. Contact: AMS, P.O. Box 6248, Providence, RI 02940.
- 23-27. Association for Women in Mathematics Meeting, Toronto, Ontario, Canada. Contact: AWM, Women's Research Center, Wellesley College, 828 Washington Street, Wellesley, MA 02181.

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