JEST 90 JCA Dec. 90

ROCKY MOUNTAIN SECTION OF THE MATHEMATICAL ASSOCIATION OF AMERICA

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1006 11th St., Campus Box 38, Denver CO 80217

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Durango, CO 81301

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Campus Box 426, Boulder, CO 80309

Past Chair: A. Duane Porter, University of Wyoming

Laramie, WY 82071

Report from the Chair of the Rocky Mountain Section - Gail Gliner,

It has been a good year so far, and we look forward to seeing everyone again in April in Greelev.

I attended the 75th annual meeting of the MAA at the Ohio State University in August. There were some excellent talks. The overall theme of the meetings was a concern for teaching undergraduate mathematics in ways which increase student's understanding.

There was a ceremony at the meetings commemorating the founding of the MAA. Jack Hodges, our Governor, carried our section's banner for the ceremony. I brought back the banner and we can display it at our meeting in April and at subsequent meetings.

The national MAA has requested we forward names of members of our section who would be interested in serving on national MAA committees. Please let me know if you are interested and/or if you know of anyone else who is interested.

A final note from the Columbus meetings; the national will be allocating more money to the local sections. This will include increasing the amount of dues money returned to the section and starting a lectureship fund for the local sections.

On behalf of our section, I submitted a proclamation to the Governor of Colorado which asked him to declare April 7-13 as Mathematics Awareness Week in Colorado. This date will correspond to our section meeting time. There will be a signing ceremony in February with the Governor and several of our officers present.

Again, we look forward to seeing you in April. If you have ideas for panels for the April meeting or an idea for an overall theme, please tell or write me, Bill Ramaley at Fort Lewis, or the program committee (Bill Bosch and Don Elliott of Math. Dept., Univ. of Northern Colorado, Greeley, CO 80639 phone (303)351-2297). Our dinner and keynote speaker will be Deborah Tepper Haimo from the University of Missouri. Dr. Haimo is Chair-elect of the MAA.

Secretary-Treasurer's Corner by Bill Ramaley

As your new secretary/treasurer, I realize how difficult it will be to follow in the footsteps of such as Bill Emerson and our record holding long-time secretary/treasurer, Dave Ballew (whose diet has made him a new man, in appearance).

In the past, we have usually had exhibits from textbook publishers at the section meeting. In the future, we would like to charge a fee for such exhibits and use the fees to help defray the costs of the meeting. In order to make this possible, would you help me by asking any publishers representatives to contact me if they wish to exhibit at the meeting. Whether or not they wish to exhibit, I would like to have the publishers representatives on the mailing list for the section newsletters. Hence, would you please have your representative contact me for inclusion on the mailing list.

If your department has a student club of the MAA, would you please send me the name of someone in the club to whom I can send our newsletter and can contact about participation in the annual section meeting.

The deadline for the next Section Newsletter is December 15. Please send material to me at the address listed at the beginning of this newsletter. If you have suggestions for the newsletter, let me know.

Section Governor's Report by Jack Hodges

I'm pleased to briefly report to you some information and impressions gained from my attendance at the Joint Mathematics Meetings and the MAA Board of Governor's meeting in Columbus, Ohio in early August, 1990.

- 1. There appears to me to be much more interaction and cooperation among the MAA, AMS and NCTM these days that there was in the early 80's. All three organizations clearly recognize the need for concerted action in order to change the current extremely unsatisfactory state of affairs in the teaching and learning of mathermatics at all levels in the U.S.A.
- 2. It seems to me that the national MAA, and so the Board of Governors, is immensely more involved—in terms of activities of its much expanded committee and task force structure—in rigorous discussion, debate and actions on the issues of reform in curriculum, changes in teacher training, effective use of technology in teaching, encouragement of women and ethnic minorities in mathematics, and changes in teaching strategies that it was during my previous term as governor of our section in 1981-84.

For current information and a variety of opinions on all of these and other important topics of vital interest to MAA members in our section, I refer you to recent issues of the MAA Newsletter, Focus, and of UME Trends (presently distributed free, but starting with Volume 3, March 1991, it will be available at a partially subsidized rate of \$12/year for six issues. Write UME Trends, c/o AMS, P.O. Box 6248, Providence RI, 02940) For example, in the most recent issue (2, no. 4, Oct., 1990), there is an annotated list of the 1990 NSF awards for the Calculus Curriculum Development Program, as well as articles concerning (1) Mathematics requirements and courses at various institutions for what is being labeled "quantitative literacy", (2) a call for dramatic changes in the mathematical education of teachers, (3) programs for increasing the number of students, particularly underrepresented ethnic minority (black and Hispanic) students, who succeed in first year calculus, (4) one author's conclusions about why the recent "second David report" finds little evidence that since the "first David report" colleges and universities are doing much to improve the teaching of calculus and other mathematical topics.

In the two most recent issues of *Focus* (10, nos. 4 and 5, September and October, 1990) there are articles on (1) an MSEB project entitled "Making Mathematics Work for Minorities," out of which has come the idea for creation of an "Alliance to Improve Mathematics for Minorities" and (2) an ongoing dialogue with the MAA on the issue of accreditation for mathematics department or programs.

I urge all members of the Rocky Mountain Section of the MAA to become or to continue to be actively involved with these important issues at both the national and sectional levels.

3. On Tuesday, August 8, 1990, the MAA held its 75th Anniversary Celebration. The celebration began with an opening ceremony marked by a procession of sectional representatives carrying banners bearing the section names and dates of founding. It may interest you to know that

among the twenty-nine present sections, the Rocky Mountain Section was one of three founded in 1917 (8th, 9th, 10th overall). A commemorative plaque was dedicated and then installed in Page Hall, the building on the Ohio State University campus where the MAA was founded in 1915.

The celebration continued with a series of special talks throughout the day. The two I thought the best were, "Was Newton's calculus just a deadend? Maclaurin and the Scottish connection." by Judith V. Grabiner; and "Has progress in mathematics slowed down?" by Paul R. Halmos. Halmos' talk was an overview of his article that subsequently appeared in the *Monthly*, 97, 7, August-Sept, 1990 561-588

The American High School Mathematics Examination is a national competitive exam sponsored by several professional societies, including the MAA, AMATYC, NCTM, AMS, ASA, and others. In Colorado, only about 60 high schools participate in this competition. It is given at each participating school in late February of each year and all students can benefit by taking such an exam. How about helping your regional coordinator (for Colorado it is William Bosch at UNC; in Wyoming, contact Eli Isaacson at the Univ. of Wyoming) publicize this activity in high schools? For more information call or write to Bosch.

William Bosch
Department of Mathematics and Applied Statistics
University of Northern Colorado
Greeley, CO 80639 [ph. (303) 351-2297]

Minutes of the Business Meeting, Rocky Mountain Section MAA, April 7, 1990 (submitted by Bill Emerson)

The minutes of the 1989 Business Meeting and the Treasurer's report were received and approved. Chair Duane Porter noted that the section will cover newsletter expenses for Metropolitan State College and University of Wyoming in the amounts of \$270 and \$210 respectively.

There was no governor's report. John Gill was unable to attend the meeting.

Next year's 1991 meeting will be held at the University of Northern Colorado in Greeley. Gill Bosch and Don Elliott will be the program chairs. There was an invitation to hold the following meeting in Colorado Springs, jointly hosted by Colorado College and the University of Colorado at Colorado Springs. Larry Cannon of Utah State University has invited the Rocky Mountain Section to hold joint meetings at Salt Lake City or Logan. A vote was taken and there were 6 votes for meeting in Utah and 14 votes for meeting on the Front Range of Colorado. There was a motion to meet in Colorado Spring in 1992, the motion passed.

The election of officers was held. New officers are Chair-Elect: Laurel Rogers; Vice-Chair: Corinne Brase; and Secretary-Treasurer: William Ramaley.

There was a motion to thank the University of Wyoming for hosting the meeting. The motion passed. There was motion to thank the nomination committee for their work. The motion passed. There was a motion to thank Bill Emerson for serving two terms as Secretary-Treasurer and Newsletter Editor. The motion passed.

There was a motion to adjourn. The motion passed.

News from the trenches (Information from departments in the section)

FORT LEWIS - by Gary Grefsrud

Greg Bell is now Chairman of the department.

The department has three new members. Deborah ("Debbie") Berrier received her Ph.D. in biometry from the Medical University of South Carolina at Charleston. She has a Masters in math from Clemson and a Masters in forestry from Virginia Polytechnic University. Her B.S. was from New Mexico State University, so we welcome her back to the Rocky Mountain area. Prior to joining our department in 1989, she taught at Emory and Henry College in Emory, VA. Her office, described as "a garden of Eden" in an article in an Emory, VA newpaper, is indeed a sight to see. If you come to Fort Lewis, bring your safari clothes.

Evans Adams has been teaching in Tennessee and joins us an Associate Professor of Computer Science. His B.S. is from Nicholls State Univ., and both his M.S. and Ph.D. were earned at the University of Southwestern Louisana. We expect him to strengthen our newly approved major in CSIS (Computer Science Information Systems). More about the CSIS major follows.

Finally, we are glad to have the services of Heidi Latvala. She has been in the graduate program at the Univ. of Utah and is taking a year to find out what full-time college teaching is really like.

Don Spencer was recently awarded the National Medal of Science by President Bush. Don, now retired, holds the title of honorary professor here at Fort Lewis College. A Fields medal recepient, D. C. Spencer retired from Princeton University. He was born in Boulder and graduated from the Univ. of Colorado, which awarded him their distinguished Alumni award in May of 1990. At the time of that ceremony, Don remembered the dissertation which Bernie Meyers (of the Univ. of Colo. in Boulder) had written as a graduate student at Stanford, where Don had been teaching at the time.

Ray Williams was on leave for the 1989-90 academic year. He arranged a faculty exchange with Bob Packard and Mike Ratliff of Northern Arizona University at Flagstaff. Hence, we got a two-for-one exhange.

Both Cliff Capp and Rich Walker are now tenured.

More about the CSIS major. This major is tailored to meet the needs of a liberal arts college, offering a flexible blend of computer science with information systems, along with a broad education in the liberal arts. The program is staffed by eight faculty, primarily from the Math Dept and the School of Business Administration. Greg Bell, the Chairman of the Math. Dept., is also the Coordinator of the CSIS major.

Last summer's Section short course was on Chaos and Dynamical Systems. Taught by Bob Devaney of Boston University, the course was a resounding success. There were forty seven participants from throughout the United States (including twenty from within the Rocky Mountain Section's area)

It is intended that a Section short course for the summer of 1991 will be held at Fort Lewis. The subject will be Calculus with Computing. Specific information on this course will be forthcoming.

POSITION BULLETIN BOARD

(This is a new section, wherein we gladly will list any opening your department may have. The only cost to you is that we ask for a contribution of some information about your department for our *News from the trenches* section.)

Metropolitan State College of Denver, Department of Mathematics has two full-time tenuretrack positions, 12 hour teaching load, to begin August, 1991

For the first position, candidate must have a Ph.D. in Probability and/or Statistics or a Ph.D. in a related field with specialization in Probability and/or Statistics. Evidence of effective teaching at the college level is required.

For the second position, candidate must have a Master's degree in Mathematics Education, with a Ph.D. degree in Mathematics or a related field with specialization in education preferred. Evidence of effective teaching at the secondary level is required.

To apply, please send a letter of application and resume to:

Dr. Gerald A. Shultz, Metropolitan State College of Denver P.O. Box 173362, Campus Box 38 Denver, CO 80217-3362

Application deadline is February 1, 1991. Metropolitan State College of Denver is an equal opportunity employer. Applications from minorities and women are particularly invited.

A new journal, PRIMUS - Problems, Resources, and Issues in Mathematics Undergraduate Studies, is a forum for the exchange of ideas on teaching and learning mathematics at the college level. PRIMUS is a refereed quarterly, devoted to dialogue and exchange of ideas among those interested in undergraduate mathematics.

The journal is published in March, June, September, and December of each year. Volume I, Number 1 is the March, 1991 issue. Each issue contains 96 pages of relevant and worthwhile material for those interested in collegiate mathematics education. Annual subscription rates are \$34.00 US per year. Contact: *PRIMUS*, Rose-Hulman Institute of Technology, Terre-Haute, IN 47803, USA [phone (812) 877-8412 BITNET:WINKEL@ROSEVC.ROSE-HULMAN.EDU]

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