

SIXTEENTH ANNUAL REPORT OF THE MAA SECTIONS
Year Ending June 30, 1993

| Section | #Memb (1992) | Meet Att. | Stud Att. | Reg Fee | Vend Fee | Wksh/ Mins | News ltrs/ year | Summ Short Course | #Stud Chapt |
|----------------------------|-----------------|--------------|--------------|-------------|-------------|---------------|-----------------------|-------------------------|----------------|
| Allegheny | 630 | 150 | 30 | \$15 | Yes | No | 2 | \$115 | 20 |
| EPADEL | 1267 | 180 156 | 35 30 | \$2- 15 | \$50 | No No | 2 | 1-\$0 1-\$270 | 19 |
| Florida | 971 | 264 | 42 | \$5- 7 | \$75 | \$3 | 3 | No | 10 |
| (*) Illinois | 1365 | | | | | | 2 | No | 8 |
| Indiana (F92) (*) (S93) | 623 | 41 | 6 | \$5 | \$100 | 2 | No | No | 12 |
| Intermount | 240 | 65 | 7 | \$5 | 0 | \$20 | 2 | No | 8 |
| Iowa | 294 | 105 | 40 | \$5 | \$25 | No | 2 | No | 6 |
| Kansas | 312 | 125 | 15 | \$10 | \$25 | No | 0 | No | 5 |
| Kentucky | 380 | 144 | 40 | \$10 | Yes | \$0 | 2 | No | 7 |
| LA-Miss | 533 | 250 | 75 | \$8- 10 | Yes | \$10 | 2 | No | 0 |
| MD-DC-VA | 2163 | 90 120 | 15 20 | \$5 | \$40- 60 | \$15 | 2 | 1-\$100 No | 0 |
| Metro NY | 1554 | 65 | 7 | \$10 | \$75 | \$0 | 2 | No | 6 |
| (*) Michigan | 913 | | | | | | 2 | No | 7 |
| Missouri | 589 | 82 | 10 | \$5 | \$0 | \$5 | 2 | No | 10 |
| Nebr-SESD | 170 | 50 | 0 | \$0 | \$0 | No | 2 | No | 1 |
| New Jersey | 980 | 192 165 | 62 50 | \$5 \$10 | \$50 | No No | 2 | No | 6 |
| No. Central | 829 | 85 183 | 11 3 | \$6 | \$75 | \$0 \$0 | 1 | 1-\$120 | 8 |
| Northeastern | 2272 | 210 130 | 66 12 | \$5- 15 | \$100 | \$0 \$0 | 2 | 1-\$20 | 30 |
| No. California | 1719 | 185 | 7 | \$10 | \$0 | No | 1 | No | 3 |

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|----------------|-----------------|--------------|--------------|--------------|---------------|----------------|-----------------------|-------------------------|----------------|
| Ohio | 1187 | 108 140 | 4 45 | \$0- 10 | \$100 | No No | 2 | No | 22 |
| Okla-Ark | 492 | 197 | 89 | \$2- 10 | Yes | \$35 | 2 | No | 14 |
| Pacific NW | 1288 | 137 | 48 | \$15 | \$100- 150 | No | 2 | No | 11 |
| Rocky Mount | 591 | 150 | 15 | \$3 | \$35 | No | 3 | No | 6 |
| Seaway | 1429 | 185 162 | 58 20 | \$10 | \$100 | No \$10 | 2 | No | 15 |
| So. California | 1781 | 245 154 | 75 42 | \$18- 23 | \$25 | No No | 3 | No | 12 |
| Southeastern | 2512 | 404 | 91 | \$7 | \$100- 150 | \$20 | 2 | No | 39 |
| Southwestern | 547 | 40 | 4 | \$6 | Yes | \$0 | 2 | No | 0 |
| Texas | 1534 | 274 | 97 | \$0- 25 | \$75- 100 | \$0 \$25 | 2 | No | 22 |
| Wisconsin | 586 | 140 158 | 10 30 | \$23 \$15 | \$50 | No | 2 | No | 1 |

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TRISECTION MEETING

ILLINOIS, INDIANA, MICHIGAN SECTIONS
JOINT SPRING MEETING
APRIL 23-24, 1993

(*) Trisection 483 25 \$5 \$100 + No

Notes:

1. When two lines are shown for the Section, the first is for the fall meeting and the second for the spring meeting.
2. The amount shown under either Workshop/Minicourse fee or Summer Short Course fee is the cost to the participant.

(Updated 9/3/93)

SIXTEENTH ANNUAL REPORT OF THE MAA SECTIONS
Year Ending June 30, 1993

| Section | MAA Reps Meet | Dept Chr Meet | Lun or Banq | MAA Book Sale | #Invit Addr | #Cont Paper | #Stud Paper | Panel Disc | SUMMA Worksh by |
|----------------------------|---------------------|---------------------|-------------------|---------------------|----------------|----------------|----------------|---------------|-----------------------|
| Allegheny | Yes | No | Yes | Yes | 5 | 15 | 12 | 0 | |
| EPADEL | No | No | Yes | Yes | 3 4 | 0 0 | 8 1 | 1 0 | Hawkins |
| Florida | Yes | Yes | Yes | Yes | 6 | 12 | 8 | 4 | |
| (*) Illinois | | | | | | | | | |
| Indiana (F92) (*) (S93) | No | No | Yes | Yes | 2 | 2 | 1 | 0 | |
| Intermount | No | No | Yes | Yes | 1 | 5 | 7 | 1 | |
| Iowa | No | No | Yes | Yes | 3 | 14 | 11 | 2 | Fasanelli |
| Kansas | No | No | Yes | | | | | | |
| Kentucky | Yes | Yes | Yes | Yes | 2 | 13 | 10 | 0 | Hawkins |
| LA-Miss | Yes | Yes | Yes | No | 2 | 22 | 20 | 2 | |
| MD-DC-VA | No | No | Yes | Yes | 2 2 | 17 24 | 0 6 | 1 0 | |
| Metro NY | No | No | Yes | Yes | 1 | 10 | 2 | 0 | Fasanelli |
| (*) Michigan | | | | | | | | | |
| Missouri | Yes | Yes | Yes | Yes | 3 | 24 | 8 | 2 | |
| Nebr-SESD | No | No | Yes | Yes | 1 | 13 | 0 | 1 | |
| New Jersey | No | No | Yes | Yes | 5 4 | 0 0 | 0 2 | 0 0 | |
| N. Central | No | No | Yes | Yes | 2 6 | 17 12 | 3 1 | 0 3 | |
| Northeastern | No | No | Yes | No | 7 7 | 6 6 | 7 6 | 0 0 | |
| N. California | Yes | Yes | Yes | Yes | 5 | 0 | 0 | 0 | |

| Section | MAA Reps Meet | Dept Chr Meet | Lun or Banq | MAA Book Sale | #Invit Addr | #Cont Paper | #Stud Paper | Panel Disc | SUMMA Worksh by |
|---------------|---------------------|---------------------|-------------------|---------------------|----------------|----------------|----------------|---------------|-----------------------|
| Ohio | Yes | No | Yes | Yes | 2 2 | 11 6 | 2 27 | 0 1 | |
| Okla-Ark | Yes | No | Yes | Yes | 2 | 38 | 28 | 0 | |
| Pacific NW | No | No | Yes | Yes | 4 | 22 | 12 | 4 | |
| Rocky Mount | No | No | Yes | Yes | 2 | 24 | 4 | 2 | |
| Seaway | No | No | Yes | Yes | 4 3 | 14 12 | 5 2 | 0 0 | |
| S. California | No | No | Yes | Yes | 4 33 | 0 7 | 0 15 | 0 1 | |
| Southeastern | Yes | Yes | No | Yes | 3 | 74 | 15 | 2 | |
| Southwestern | Yes | No | Yes | Yes | 3 | 8 | 0 | 1 | Stevens |
| Texas | Yes | Yes | Yes | Yes | 4 | 29 | 22 | | |
| Wisconsin | No | No | Yes Yes | No Yes | 1 5 | 4 40 | 0 11 | 0 1 | |

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TRISECTION MEETING

ILLINOIS, INDIANA, MICHIGAN SECTIONS
JOINT SPRING MEETING
APRIL 23-24, 1993

| | | | | | | | | | |
|----------------|----|----|-----|-----|---|----|----|---|--|
| (*) Trisection | No | No | Yes | Yes | 4 | 46 | 19 | 1 | |
|----------------|----|----|-----|-----|---|----|----|---|--|

Note: When two lines are shown for the Section, the first is for the fall meeting and the second for the spring meeting.

(updated 9/3/93)

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WORKSHOP OR SHORT COURSE AT MEETING

Allegheny

"How to Make Use of Inexpensive Pocket Calculators to Develop the Concepts and Techniques of Calculus", Frank Demana

Florida

"Teaching With the TI-85 Calculator", Bill Hemme and John Savige

Intermountain

"Classical Geometry for Undergraduates", James Carlson

Kentucky

"An Overview of Operations Research", Tom Kearns

Louisiana-Mississippi

"Graphing Calculators", Grace C. Cascio-Houston, Karen Thrash, and Wanda Dixon
"Wavelet Theory", G.S. de Souza and Ham Wongshang

Maryland-District of Columbia-Virginia

"Involving Undergraduates in Mathematical Research", Aparna Higgins

Metropolitan New York

"Mathematical Education Reform-and Why I am a Radical Conservative",
Richard Askey

Missouri

"TI-85 Calculator", Ben Budde, Jack Mosley, Debra Perkowski and Mike Williams

North Central

"Calculator Workshop", Douglas Kurtz
"TI-85 Calculator", Michael Fiske

Oklahoma-Arkansas

(Student) "An Introduction to Cryptography", Tommy Leavelle
(Faculty) ""Using DERIVE to Teach Calculus and Linear Algebra", Jerry
Johnson and Benny Evans

Northeastern

"Integrating the TI-85 Calculator into the Mathematics
Curriculum:Pre-calculus and Calculus", Donna Christie
"Chaos in the Classroom: Discrete and Continuous Population Models", Bob Decker
"Newton's Method from a Calculus I Perspective", John Williams
"Calculus Explorations and Modeling with Calculus T/L", Donald Small
and Miguel Garcia

Seaway

"Using DERIVE to Discover the Fundamental Theorem of Calculus,
Carl Leinbach and Marvin Brubaker

Southeastern

- "Number Theory", Carl Pomerance
- "HP-48 With Applications to Calculus Topics", Gil Proctor
- "Preparing a Successful Grant Proposal", Sharon Ross, Tina Straley, David Royster and Mike Perry

Southwestern

- "Enhancing Mathematics Education Using Technology", David Lovelock

Texas

- "A Workshop on MAPLE", James C. Bradford and David K. Hughes

SUMMER SHORT COURSE

Allegheny

- "Unifying Themes in Discrete Mathematics", Ralph Grimaldi
(Rose-Hulman Institute of Technology) - \$115

EPADEL

- "Symmetry and Group Theory", Doris Schattschneider
(Moravian College), funded by the National Science Foundation
- "A Mathematical Sampler: 1647 - 1900", William Dunham
(Muhlenberg College) - \$270

Maryland-District of Columbia-Virginia

- "Modeling Energy Systems", H.T. Odum (University of Florida) - \$100

North Central

- "Cryptography and Computational Number Theory", Carl Pomerance
(University of Georgia) - \$120

Northeastern

- "Calculus Reform" (Ithaca College faculty) - \$20
- One-day Minicourse on "Great Theorems From Mathematical Analysis", William Koehler (Muhlenberg College), - \$30

PUBLIC AWARENESS ACTIVITIES PERFORMED

EPADEL, New Jersey, Ohio: Newspaper publicity on the Section winner of the National MAA Distinguished Teacher Award (Doris Schattschneider, Eileen Poiani and Fred Rickey)

Illinois, Indiana, Michigan, Ohio: The Section obtained a proclamation from the Governor of the state for "Math Awareness Week" in the state.

Iowa, North Central: Various campuses planning "Math Awareness Week" activities.

New Jersey: Article in AWM Newsletter on the fall meeting all-woman program.

Northeastern: A Mathematical Sciences Career Conference this fall is planned at Bentley College, with invited speakers from ten different occupations which require a strong mathematical background. The conference is funded jointly by the Section and Bentley College and possible outside funding.

Ohio: Numerous releases on mathematical topics of local interest.

Seaway: Numerous releases to local newspapers on mathematics and mathematicians in the area.

Southeastern: State Directors are publicizing mathematical events.

Texas: A newsletter article on how to promote Mathematics Awareness Week strengthened the activities of various campuses.

ACTIVITIES PROVIDED FOR STUDENT CHAPTERS

Allegheny: Encourage papers and provide free registration and frequently free room to students at annual meeting

Eastern Pennsylvania and Delaware: Repeat one-day conference on careers planned for fall, 1993; encourage student papers at meetings; student paper competition; encourage student participation in various problem-solving competitions.

Florida: Students are encouraged to present papers at Section meetings by giving them an MAA membership, book, or a meeting attendance expense payment from the Section; encourage attendance at national meetings, with a Section donation of up to \$1000 per year to help students defray their expenses; a social time at every annual meeting with food and entertainment provided for students attending.

Illinois: Encourage student participation and student papers, as well as various social activities, at annual meeting; student chapter campus activities.

Indiana: A speaker's list for student chapters is being maintained by the Section's student chapter coordinator; student activities at the spring (trisection) meeting included a Dinner/Mystery Party provided free of charge to pre-registered students at the meeting.

Iowa: The spring meeting included a mathematical modeling competition in addition to the student paper session.

Kansas: An award for the best student paper presented at the Section meeting.

Louisiana-Mississippi: Student competition and student papers at annual meeting

Maryland-District of Columbia-Virginia: An Environmental Math Conference is planned for spring, 1994

Michigan: Pizza party at the annual meeting; some subsidy for the annual meeting is provided.

- Missouri: Encourage student papers at annual meeting; EXXON grant used to partially support student presenters' travel expenses.
- New Jersey: Maintain list of speakers for student groups; encourage student papers at meeting; waive registration fees for students at meeting; student lunch at fall meeting with EXXON grant
- North Central: Students pay no registration fee and free or low cost housing is usually available at meetings.
- Northeastern: Special student presentation, with invited speaker, at each meeting. Student presentations and luncheon swap sessions; Section supports two students from each chapter at both fall and spring meetings.
- Ohio: Maintains list of speakers for student chapter meetings
- Oklahoma-Arkansas: Luncheon at meeting for coordinators of student sections
- Seaway: Special sessions for students at the fall and spring meetings, involving a featured speaker and student talks.
- Southern California: Student contributed paper session at spring meeting; every effort made to insure that the invited address is reasonably accessible to upper division undergraduate students.
- Southeastern: Pizza lunch at annual meeting for student attendees and advisors; contributed student paper sessions; "T.A. Rush" with college faculty and graduating seniors continues to be a popular event.
- Texas: Student paper sessions, student workshop and an breakfast for student chapter advisors and student representatives at the annual meeting. pizza party given free as possible alternative to banquet; graduate school representatives meet with prospective graduate students; materials from student workshops made available to all Section student chapters.
- Wisconsin: Lodging subsidy to student paper presenters who stay overnight

RECOMMENDED SPEAKERS AND THEIR TOPICS

- Laszlo Babai, University of Chicago, *Oddtown Clubs and the Demise of Borsuk's Conjecture - Linear Algebra Methods in Combinatorics and Geometry* - Kentucky
- Paul Blanchard, Boston University, *Newton's Method: Complex Numerics and Complex Dynamics* - Northeastern
- Richard A. Brualdi, University of Wisconsin-Madison, *Regions Containing the Eigenvalues of a Matrix* - Wisconsin
- Robert L. Bryant, Duke University, *Moving Triangles, Billiards and Some Exceptional Geometry* - Southeastern
- H.S.M. Coxeter, University of Toronto, *Symmetrical Combinations of 3 or 4 Hollow Triangles* - Northeastern
- Robert S. Doran, Texas Christian University, *Some of My Students' Favorite Things* - Texas

Ed Dubinsky, Purdue University, *Assessment and Research in Undergraduate Mathematics Curriculum Reform* - Texas

William Dunham, Muhlenberg College, *"Constructing the Regular Heptadecagon; Ingenuity or Just a Lucky Guess?"* - EPADEL

Great Theorems From Mathematical Analysis: 1689-1881 - Northeastern

John Ewing (Polya Lecturer), Indiana University, *Can We See the Mandelbrot Set?* , - Allegheny, Kentucky, Seaway

Joseph Gallian, University of Minnesota-Duluth, *Minnesota License Code - The Rest of the Story* - North Central

Helen Gardner (see Robin Wilson)

Aparna Higgins, University of Dayton, *Undergraduate Student Research* - MD-DC-VA

Peter Hilton, SUNY at Binghamton, *Cryptanalysis During World War II* - MD-DC-VA

John Holte, Gustavus Adolphus College, *Fractals and Multifractals in Arithmetic* - North Central

Mark Johnson, University of Central Florida, *Stochastic Optimization and the Gambler's Ruin Problem* - Florida

Dan Kalman, The Aerospace Corporation, *What on Earth (and in Space) is Automatics Differentiation?* - Southern California

Clark Kimberling, University of Evansville, *Central Points in the Plane of a Triangle* - Indiana

Huseyin Kocak, University of Miami, *An Illustrated History of Chaos*, - Florida

James Leitzel, University of Nebraska-Lincoln, *Changing Undergraduate Mathematics* - Nebraska-SESD

David Lovelock, University of Arizona, *Enhancing Mathematics Education Using Technology* - Southwestern

Mario Martelli, California State University Fullerton, *Strictly Increasing Differentiable Functions* - Southern California

Robert McKelvey, University of Montana, *Mathematical Models and Conservation Biology* - Missouri

Hugh Montgomery, University of Michigan, *The Indiana Needle Problem* - Michigan

David S. Moore, Purdue University, *Teaching Statistics as a Respectable Discipline* - Ohio

S. Brent Morris, Defense Department, *Magic Tricks and Dynamic Computer Memories* - MD-DC-VA

Gail Nelson, Carleton College, *What's Really in the Cantor Set?* - North Central

Peter Olsen, Defense Department, *The EXXON Valdez Oil Spill Cleanup* - MD-DC-VA

Marepalli B. Rao, North Dakota State University, *The Wonderful World of Dice* - North Central

Bruce Reznick, University of Illinois, *Some Identities of Hilbert and Their Implications* - Michigan

Fred S. Roberts, Rutgers University, *The One-Way Street Problem* - Seaway

Jane Sangwine-Yager, St. Mary's College, *The Legacy of Dido* - Northern California

Doris Schattschneider, Moravian College, *M.C. Escher as a Mathematician* - New Jersey

Steven Strogatz, MIT, *Synchronous Fireflies* - Northeastern

Robin Wilson and Helen Gardner, Open University, England, *Memoirs of a Victorian Mathematician* - Indiana

