Program of Activities
For the Fall Meeting of the

Mathematical Association of America

Ohio Section

Fall 2005
Ashland University
Ashland, Ohio
October 21-22, 2005

MAA Ohio Section

Program

Friday, October 21, 2005

12:00—4:30	Registration, Book exhibits	Hawkins-Conard Student Center Conference Rooms
12:15—1:15	Committee Meetings CONCUR CONSACT CONSTUM CONTEAL	Patterson Center: Room 309 Room 314 Room 320 Room 323
1:30—1:45	Welcome and Announcements	Hawkins-Conard Student Center Auditorium
1:45—2:45	Invited address: **"Packing Discs in the Plane"** Ronald L. Graham, University of California, San Diego.	Hawkins-Conard Student Center Auditorium
2:45—3:15	Break & refreshments	Hawkins-Conard Student Center Conference Rooms
3:15—4:15	Invited address: **"I thought I was Lecturing."** Thomas Hern, Bowling Green State University.	Hawkins-Conard Student Center Auditorium
4:15—5:50	**Contributed Paper Sessions**	Dauch Hall
4:15—5:50	Executive Committee Meeting	Dauch Hall, Room 116
6:30—7:45	Banquet	John C. Myers Convocation Center Faculty Room
7:45—8:30	After-dinner talk: **"A Funny Thing Happened on the Way to the Meeting."** Leo J. Schneider, John Carroll University.	John C. Myers Convocation Center Faculty Room

Saturday, October 22

8:00—10:30	Registration, Book exhibits	Hawkins-Conard Student Center Conference Rooms
8:00—8:50	Coffee, pastries, juice	Hawkins-Conard Student Center Conference Rooms
8:05—8:45	Executive Committee Meeting continuation (if necessary)	
8:05—8:45	Meeting of Dept. Liaisons and Chairs	Hawkins-Conard Student Center Conference Room A
9:00—10:00	Invited address: **"Zeroing in on the Implicit Function Theorem."** Carol Schumacher, Kenyon College.	Hawkins-Conard Student Center Auditorium
10:00—10:30	Break & refreshments	
10:30—11:30	**Contributed Paper Sessions**	Dauch Hall
11:40—12:40	Invited address: **"Undergraduate Research, Planting the Seed and Watching it Grow."** Leo J. Schneider, John Carroll University.	Hawkins-Conard Student Center Auditorium
12:40	Closing remarks	Hawkins-Conard Student Center Auditorium

Abstracts of Invited Addresses

Speaker: Ronald L. Graham, University of California San Diego
Title: "Packing Discs in the Plane."

Abstract: A classical problem in geometry deals with finding the densest packings of equal discs in the Euclidean plane. While the solution to this problem has been known for more than a hundred years (hexagonal is best), there are many variations of this problem which are completely unsolved. In this talk, I will describe some of what is currently known, and what is still unknown.

Speaker: Thomas Hern, Bowling Green State University
Title: "I thought I was Lecturing."

Abstract: What do you say about teaching to such an august group as the Ohio Section? It is almost presumptuous to think I have much to say to an already experienced group. I asked around, and I think I can say something of interest.

One of the things that I have a beef about is the imprecise way certain terms are used, to the point that conversations often end up being about different things. One such term is 'lecture'. One person tells me that lecturing is the worst way to teach. I have a story about that. Other terms are assessment (I call it the A-word), statistics, reform **** (fill in your favorite), So your homework is: tell me what you think lecture means. (Once a teacher, always ...)

I will also give a few of my tricks or hints that I have come up with over the years. You are free to use or reject any of them. But I would like to pass them on. That is my last point. How do we pass on the experience gained to the future generations? How do we really teach about teaching? I am convinced that teaching is a cultural activity, as James Stigler claims. So the mechanisms need to reflect that reality. I have a concrete example in mind: the teaching of calculus at BGSU. BTW that is one of my hints: never underestimate the value of a good example.

Speaker: Leo J. Schneider, John Carroll University
Title: "A Funny Thing Happened on the Way to the Meeting."

Abstract: What is the funniest mathematics-related joke you heard at an MAA talk? What is your most vivid memory from the first MAA Section meeting you attended, and/or the first national MAA meeting you attended? What is the most compassionate favor you have received at one of these meetings? What was your most panic-stricken moment at one of these meetings? Which talk and its subject that you have heard at a meeting in years gone by would be the most out of place at today's meeting? And where did you get those red corduroy pants?

Speaker: Carol Schumacher, Kenyon College
Title: "Zeroing in on the Implicit Function Theorem."

Abstract: In mathematics, it often happens that baroque, highly technical results disguise beautiful underlying principles. This talk traces the path from the elegant contraction mapping principle to the rather inscrutable implicit function theorem---a path that passes through Newton's method for finding roots, linear algebra and linear approximation, and the geometry of multidimensional surfaces.

Speaker: Leo J. Schneider, John Carroll University
Title: "Undergraduate Research, Planting the Seed and Watching it Grow."

Abstract: Leading and watching students work on problems and seeing their successes is one of the most rewarding aspects of teaching. This is especially true when the students have begun with especially easy arithmetic problems and generalized them beyond anything one might have expected.

The Pi Mu Epsilon Journal has Andree Awards for the best student-written articles published each year. Three students who did work on problems suggested by the speaker have won such awards during the past thirty-plus years. We will explore the steps, triumphs, and false starts that eventually led to the accomplishments of two of these students.

Biographies of Invited Speakers

Ronald L. Graham, University of California San Diego

Ron Graham entered university at age 15, intending to pursue a career in science. After three years at Chicago, he decided to transfer to the University of California at Berkeley and to major in electrical engineering. Eventually - after a four-year gap in which he joined the Air Force and was assigned to a post in Alaska - Ron finished his undergraduate education and received a B.S. degree in physics from the University of Alaska in 1958. Ron subsequently was awarded a Masters and a Ph.D. degree in mathematics from the University of California at Berkeley in 1961 and 1962, respectively. During his graduate years, Ron was both an NSF Fellow and a Woodrow Wilson Fellow. Interestingly, Ron worked his way through graduate school by performing in a circus with a trampoline troupe.

Ron Graham currently holds the Irwin and Joan Jacobs Endowed Chair in Computer and Information Science in UCSD's Jacobs School of Engineering, and is Chief Scientist of the California Institute for Telecommunications and Information Technology [Cal-IT2]. He joined the UCSD faculty in 1999, after a 37-year career with AT&T, ultimately as Chief Scientist at AT&T Labs. Currently he is the Treasurer of the National Academy of Sciences and is a Past-President of both the American Mathematical Society and the Mathematical Association of America.

Over his career, Ron has made significant contributions to virtually every area of pure and applied mathematics. Ron is probably most well known for his work in Ramsey Theory, a branch of mathematics that has to do with finding unavoidable order in apparently random mathematical situations. For example, if one arranges the numbers 1 through 101 in any random order, the theory guarantees that there will always be at least 11 numbers arranged in increasing order or at least 11 in decreasing order, so, to that extent, no arrangement is entirely disordered. Until recently, no one had found any application for results like this, but Ramsey theory is now being used in the design of data networks. For his work in Ramsey Theory, Ron was a co-recipient of the prestigious Polya Prize in Mathematics awarded by the Society for Industrial and Applied Mathematics.

Ron's many contributions have been recognized by his election to the National Academy of Sciences, and by his Fellowships in the American Academy of Arts and Sciences, the New York Academy of Sciences, and the American Association for the Advancement of Science. Ron received the Carl Allendorfer Award of the Mathematics Association of America, the Lester Ford Award of the Mathematics Association of America, and the Euler Medal of the Institute of Combinatorics. He has also received five honorary doctoral degrees. Most recently, Ron was named a Fellow of the ACM, the Association for Computing Machinery.

Without a doubt, Ron Graham is one of the most well known mathematicians in the world today. He is listed in the Guinness Book of Records for the use of the largest number ever in a mathematical proof. The unusual number, for which a new notation was required to represent the number, is, of course, known as Graham's number. He sits on the editorial boards of more than 40 mathematics journals, and travels and lectures extensively - and everywhere.

Ron is also a talented and dedicated juggler, and has served as President of the International Jugglers Association. In particular, he was well known for having a net that hung from his office ceiling in Murray Hill, while at AT&T, that snared the occasional ball that got away from him while practicing.

Ron is married to Fan Chung Graham (known professionally as Fan Chung), who is the Akamai Professor in Internet Mathematics at the University of California, San Diego. He has two children - a daughter, Che, and a son, Marc - from an earlier marriage.

Thomas Hern, Bowling Green State University

Tom Hern's degrees are an A.B. from the University of Cincinnati, and an M.S. and Ph. D. from The Ohio State University, all in mathematics. His dissertation was on probability under the direction of Jesse Shapiro. Tom has been at BGSU since graduate school, with the exception of two years in the CS department at the University of North Carolina at Chapel Hill.

Tom wrote the following, "I grew up in Cincinnati and attended Withrow high school, where my first influence was Eleanor Graham, my AP math teacher for three years. I think I teach like her. I still remember the class, well really Roger Steubing, discovering' the power formula.

I have a checkered genealogy: ethnically English, Scot, Swiss, and German. You can see why am so stubborn and close with a buck. Parts of my mother's family have been in Cincinnati for about 175 years and were academics. My great-great grandfather taught at old Woodward (then downtown) in the 19th century, and in fact taught physics and chemistry to E.H. Moore. My great grandparents were classmates of Moore at Woodward. My great grandmother taught in the Wyoming, Ohio schools, and their son was Professor of Chemistry at the Univ. of Massachusetts, Amherst.

On the other hand my father was the first in his family to graduate high school, and I was the second. I had to fight to go to college, and paid my own way. His grandfather, a Civil War veteran, could not sign his name. The Herns seem particularly good at business and seeing the big picture.

My hobbies or non-mathematical interests are photography (film), travel, genealogy, finance, local and mathematical history, steam engines (not just rail), in fact anything mechanical. I am always taking thing apart."

Tom has served the Ohio Section in numerous offices, such as President, Program Committee, webmaster and newsletter editor. He is currently in the last year as Section Governor. Tom received the Meritorious Service Award, and the Section teaching award. It is because of the last award that he has been asked to give this talk.

Leo J. Schneider, John Carroll University

Leo J. Schneider is a Professor in the Department of Mathematics and Computer Science at John Carroll University where he has taught since 1963. Leo received his B.S. and M.S. degrees in Mathematics from Xavier University and his Ph.D. from Case Western Reserve University where his thesis was "Oscillatory Properties of the Ordinary Fourth Order Self-Adjoint Differential Equation". The two years after receiving his M.S. he spent in the U.S. Army Ordinance Corps at the Springfield Armory in Massachusetts helping those in the military industrial complex manufacture rifle and machine gun parts more efficiently with the use of computer controlled machine tools.

One of the Ohio Section members who was most influential to Leo early in his career was Fr. Raymond Allen, S.J., who was the chair of the Mathematics Department at Xavier while Leo was a student there, who moved on to be chair of the Mathematics Department at John Carroll and hired Leo there, who brought Leo to his first Ohio Section meeting, and who introduced Leo to Susan, Leo's wife of 32.8 years (and counting).

In the Ohio Section Leo has served on the Program Committee, as President, as Section Governor, as Chair of the Teaching Awards Committee, and for many years before that as the Ohio Examination Coordinator for the MAA's high school mathematics contest. For the national MAA Leo spent 15 years on its committee for the American Mathematics Competitions chairing the committee and its examination-writing component for 6 of those years, and he is still on the Advisory Panel for those competitions. Currently, Leo is on the committee that authors problems for the American Regions Mathematics League annual meet, and has been the sole author of the Team, Individual, Relay, and Tie-Breaking rounds of the annual New York State Mathematics League meet. Leo is in his third three-year term on the national Council of Pi Mu Epsilon, the Honor Mathematics Society, and is in his second term as its Secretary-Treasurer.

Leo was the recipient of the Award for Distinguished College or University Teaching of Mathematics from the Ohio Section in 2004.

Carol Schumacher, Kenyon College

Carol Schumacher is Professor of Mathematics at Kenyon College in Gambier, OH. She received a Bachelor of Arts in Mathematics from Hendrix College in 1982 and a Ph.D. in Functional Analysis from the University of Texas at Austin in 1989. She joined the Kenyon faculty in the fall of 1988 and is currently serving a sentence as departmental chair. Carol is the author of the textbook **Chapter Zero**---*Fundamental Notions of Abstract Mathematics*, now in its second edition. She is now working on a second book: **Closer and Closer**---*An Introduction to Real Analysis*. Last spring, she received Kenyon's trustee award for outstanding teaching by a senior faculty member.

Contributed Paper Sessions for Friday, October 22, 2004

All rooms are in the Dolan Center for Science and Technology

	Room E130	Room E134	Room E120
Time	Session Chair:	Session Chair:	Session Chair:
4:15 – 4:30	***Salamanders and Mathematics: Art and Mathematics at ONU*** Abstract 1 William R. Fuller Ohio Northern University	***Musings on the Product Rule from Differential Calculus*** Abstract 2 Carl Stitz Lakeland Comm. College	***Features To Consider When Evaluating Math Instructional Technology*** Abstract 3 Scott Perrine Addison Wesley
4:35 – 4:50	***Using Writing in Mathematics Courses*** Abstract 4 James A. FitzSimmons Wilmington College	***The Ducci Game: a Brief Review*** Abstract 5 Kristi Patton Ohio Northern University	***The Best Courseware You Have Ever Seen!*** Abstract 6 Lindsay Stevens Hawkes Learning Systems
4:55 – 5:10	***Direct Relation Between Area and Perimeter*** Abstract 7 Paul C. Havens Lakeland Comm. College	***What's in Your Students' Calculators?*** Abstract 8 Carl Spitznagel John Carroll University	***Brooks/Cole Solutions for Integrating Technology in the Classroom*** Abstract 9 Regina Johnson Brooks/Cole Thompson Publishing
5:15 – 5:30	***Quadratic Residues: a Computer-assisted Journey*** Abstract 10 Nathan Baxter Ohio Northern University	***Introducing Undergraduates to Polytopes*** Abstract 11 Matthew M. Menzel Marietta College	

Contributed Paper Sessions for Saturday, October 23, 2004

All rooms are in the Dolan Center for Science and Technology

	Room E130	Room E134	Room E120
Time	Session Chair:	Session Chair:	Session Chair:
10:30–10:45	***When 2+2 is not 4: Messing with the Minds of our Students*** Abstract 12 Martha Frank and Sister Jeanne Moenk Central Michigan University and Notre Dame College	***Magic Labeling of Polygonal Configurations*** Abstract 13 Floyd Barger Youngstown State Univ.	***An Unexpected Use of Math Induction*** Abstract 14 John C. Tynan Marietta College
10:50-11:05	***BGSU Online Math Placement: How did it go?*** Abstract 15 David E. Meel Bowling Green State Univ.	***Cographs from Noncommutative Groups*** Abstract 16 Robert Haas unaffiliated	***The Mathematics Behind a Certain Card Trick*** Abstract 17 M. B. Rao University of Cincinnati
11:10-11:25	***Lessons from an Interdisciplinary Course "Patterns: Math and History"*** Abstract 18 Mary A. Bergs Mercy College of Northwest Ohio	***A New Identity of the Binomial Type*** Abstract 19 Bao Qi Feng Kent State University, Tuscarawas	

Abstracts of Contributed Papers

Friday 4:15 – 4:30

Salamanders and Mathematics: Art and Mathematics at ONU

William R. Fuller
Faculty, Ohio Northern University

Abstract Number: 1. In this talk, some examples of "found" mathematics from Ohio Northern University will be discussed. One of the ways that mathematics is a liberal art is that it liberates our vision of our every-day world. Examples of how this occurs will be developed by considering the mathematical structures of several works of art from the ONU campus with special focus on the armature of the sculpture, Le Guardo de Gaudi, by Cherie Grant.

Musings on the Product Rule from Differential Calculus

Carl Stitz
Two-Year Faculty, Lakeland Community College

Abstract Number: 2. In this talk, I'll share some of my experiences and some of my students' experiences with the product rule from first year calculus. Many of these ideas were new to the faculty at Lakeland, so some of them may be new to you, too! Note: this talk is accessible to first year calculus students.

Features To Consider When Evaluating Math Instructional Technology

Scott Perrine
Representative, Addison Wesley

Abstract Number: 3. This talk will focus on technology and how it can be incorporated into math classes to improve student success. Technologies ranging from computer graded online homework, online quizzing and testing, eBooks, and in class response systems (clickers) will be discussed. Addison Wesley has Math technology, including computerized assessment testing for all levels of Math from developmental thru Calculus courses.

Friday 4:35 – 4:50

Using Writing in Mathematics Courses

James A. FitzSimmons
Faculty, Wilmington College

Abstract Number: 4. Writing in the learning of mathematics is a cornerstone standard in mathematics education, and I believe that it is important that my students not only know how to think mathematically and solve mathematical problems, but that they are able to effectively communicate that mathematics and analyze their results. I have found that the process of explanatory writing about mathematics leads students to think about their understanding of

mathematical concepts and to confront and seek answers to holes in their knowledge. I have also found that, as a professor, I gain a more thorough understanding of my students' knowledge of mathematical concepts by reading their written explanations. During this talk we will discuss creating meaningful writing assignments and methods of assessing them.

The Ducci Game: a Brief Review

Kristi Patton
Student, Ohio Northern University

Abstract Number: 5. In their 1937 paper "Su una interessante curiosita numerica", Periodico di Matematiche, Ser.4, 17 (1937), 25–30, C. Ciamberlini and A. Marengoni mention for the first time "The Four Numbers Game", attributing it to the Italian Professor E. Ducci. The game proceeds by iterating the function sending the 4-tuple ("diffy") of integers (x,y,z,t) into (|y-x|,|z y|,|t-z|,|x-t|). It turns out that after a finite number of iterations we always get to (0,0,0,0). We will review the proof of this interesting fact, also addressing some of its possible extensions.

The Best Courseware You Have Ever Seen!

Lindsay Stevens
Representative, Hawkes Learning Systems

Abstract Number: 6. Would you like to reap the benefits associated with your students regularly doing their homework, without the burden of grading? Our courseware instructs, tutors, and assesses students' progress through mastery of concepts. You will love our online gradebook and sophisticated test generator. See how easy it is!

Friday 4:55 – 5:10

Finding Direct Relation Between Area and Perimeter of Polygons

Paul C. Havens
Student, Lakeland Community College

Abstract Number: 7. Given that the derivative of the area of a circle is the circle's perimeter, this presentation will detail the same relation between area and perimeter for various regular polygons.

What's in Your Students' Calculators?

Carl Spitznagel
Faculty, John Carroll University

Abstract Number: 8. Many mathematics courses require or permit students to use calculators on exams, and the TI-83 Plus and TI-84 Plus are among the most commonly used calculators. This talk will demonstrate the surprising extent of material -- both textual and symbolic -- that can be stored on these calculators and brought to class. Whether you welcome or are concerned by these capabilities, you should certainly be aware of them.

Brooks/Cole Solutions for Integrating Technology in the Classroom

Regina Johnson
Representative, Brooks/Cole Thompson Publishing

Abstract Number: 9. How can technology enhance the student learning experience and provide you with numerous teaching solutions? In this presentation, I will describe how Brooks/Cole offers the most powerful suite of online, customizable teaching and learning resources for mathematics instructors and students. In particular, I will demonstrate iLrn. A fully integrated learning system that ties together tutorials, homework, quizzing, testing/assessment, and course management. This dynamic system provides you with unsurpassed control, variety, and all-in-one utility for your course.

Friday 5:15 – 5:30

Quadratic Residues: a Computer-assisted Journey

Nathan Baxter
Student, Ohio Northern University

Abstract Number: 10. We will use MAPLE and MATLAB in order to explore various properties and results involving the distribution of quadratic residues and non residues modulo a prime number p. We will also investigate the distribution of points in the x-axis projection of an elliptic curve over a field with p elements.

Introducing Undergraduates to Polytopes

Matthew M. Menzel
Faculty, Marietta College

Abstract Number: 11. The study of polytopes is accessible to students of varying mathematical backgrounds. In different forms, they can be presented to students in a math for liberal arts majors course, a general discrete mathematics course, or a discrete mathematics course that is geared towards math majors. In this talk, we will look at basic ideas such as Euler's Relation and Steinitz' Theorem for characterizing the numbers of faces of polyhedra.

Saturday 10:30 – 10:45

When 2+2 is not 4: Messing with the Minds of our Students

Martha Frank and Sister Jeanne Moenk, SND
Faculty, Central Michigan University and Notre Dame College

Abstract Number: 12. Our Preservice elementary teachers need to acquire a deep understanding of our positional numeration system. They think they already possess this understanding. Taking them out of their comfort zone to confront arithmetic in base 3 and other bases helps them gain the deeper understanding. In our talk, we will explain how we introduce students to arithmetic in bases other than 10.

Magic Labeling of Polygonal Configurations

Floyd Barger
Retired Faculty, Youngstown State University

Abstract Number: 13. A hypergraph H consists of a set of points, a set of lines and a rule to tell if point x is on line l. If there are n points, a labeling using 1,2,..,n (each once) is called a magic labeling if the average label on each line is the same. The presentation includes pictures and some labeling algorithms. Lots of good student projects. A small sample: Consider a regular polygon on m sides. Points are the center, the vertices, and r-1 equally spaced points on the interior of each edge. Lines are edges and lines through the center joining opposite points. (rm is even) This is the edge rank r model. Theorem: Edgerank 2 are magic iff m is even.

An Unexpected Use of Math Induction

John C. Tynan
Faculty, Marietta College

Abstract Number: 14. After asking a bonus question, one of my students submitted an answer from the internet. I did not understand all of it and began to look into it with colleagues and we were surprised at how we used induction in a non-typical way.

Saturday 10:50 – 11:05

BGSU Online Math Placement: How did it go?

David E. Meel
Faculty, Bowling Green State University

Abstract Number: 15. During the Summer of 2004, BGSU implemented an online math placement exam. This report will discuss the struggles and successes as we planned, implemented, and compared the results against those from 2003. In particular, this talk will describe the online placement exam developed in-house at BGSU, the trials and tribulations when attempting to deliver the exam, and the fact that 99% of the students took the exam prior to coming to a BGSU Orientation session. Recommendations and potential obstacles will be

discussed for those who might consider implementing an online math placement test at your institution.

Cographs from Noncommutative Groups

Robert Haas
unaffiliated

Abstract Number: 16. Cographs--graphs with colored edges--arise as a natural generalization of graph theory in sets, Euclidean geometry, commutative groups, knots, and graphs, as one simply defines the "color" C(P,Q) of the edge joining points P and Q to be the intersection, distance, sum, etc. of the two endpoints. In noncommutative groups the definition C(P,Q) = {PQ,QP} yields a rich structue of repeated edges: whenever C(P,Q) = C(R,S), a whole "ladder" of points P_n, Q_n satisfy C(P,Q) = C(P_n,Q_n); when C(P,Q)=C(Q,R), a whole "chain" of P_n may satisfy C(P,Q)=C(P_n,P_(n+1)). A chain arises if and only if PQ doesn't equal QP, P^2Q=QP^2, and PQ^2=Q^2P; my latest work focuses on characterizing the "chain group" <P,Q>.

The Mathematics Behind a Certain Card Trick

M. B. Rao
Faculty, University of Cincinnati

Abstract Number: 17. Write three three-digit numbers behind my back using all the integers 1 to 9. Remove one digit from anywhere and replace it with zero. Add the resultant three three-digit numbers in the usual way. Tell me the sum. I will tell you the digit which you removed.

Saturday 11:10 – 11:25

Lessons from an Interdisciplinary Course "Patterns: Math and History"

Mary A. Bergs
Faculty, Mercy College of Northwest Ohio

Abstract Number: 18. Have you heard of secular, symbolic or philosophical, and sacred mathematics? Why do students use a mathematically correct algorithm on the wrong problem? I taught an interdisciplinary course, “Patterns: Math and History,” with a humanities teacher spring semester. I expected to teach the students about how math develops from patterns and point out patterns of thought throughout history. What I learned from teaching the course has changed the way I teach my math classes.

Acknowledgements

The Ohio Section would like to thank the faculty and staff of the Mathematics Department at Ashland University for their efforts in hosting this meeting. Special thanks go to Cathy Stoffer, the Chair of the Local arrangements Committee.

The Section also wishes to thank Wittenberg University for providing the funds to print this program. Thanks also go to the exhibitors for their support of the meeting.

Calendar of Coming Events

The Ohio Section Summer Short Course on **"Baseball, Statistics, and the Role of Chance in the Game"** is scheduled for **June 7-9, 2006**, at Mount Unioun College in Alliance, Ohio. **James Albert**, professor of Mathematics and Statistics at Bowling Green State University, author of *Teaching Statistics Using Baseball*, and coauthor of *Curveball: Baseball, Statistics, and the Role of Chance in the Game* will lead the participants.

Mark your calendar for the **Spring 2006 Ohio Section Meeting** on **March 31-April 1, 2006** at the University of Akron in Akron, Ohio. We have a program that you and your students should not miss including talks by **Georgia Benkhart, David Finn and Dwight Olson**.