



# OHIO FOCUS

The Ohio Section Newsletter

Volume 6

Fall, 1997

Number 1

## Fall Meeting at Shawnee State October 24-25



Vern Riffe Center for the Arts

The Fall Meeting of the Ohio Section of the MAA will be held Friday afternoon and Saturday morning, October 24-25, 1997 at Shawnee State University in Portsmouth. All sessions—including registration, breaks, exhibits, and the banquet—will take place in the new, plush Vern Riffe Center for the Arts at Shawnee State, pictured here.

The Program Committee, chaired by Judy Palagallo, Akron, has a very interesting program planned. The featured speaker is Marjorie Senechal of Smith College. The theme of the meeting is **Symmetry and Tilings**. A Special Session on that topic is being organized by David Kullman, Miami University. There will also be a talk on Saturday by Fred Rickey, Section teaching award winner. Details on page 8.

Portsmouth is located on the Ohio River where US 23 crosses into Kentucky, two hours or so from Columbus. It is easy to get to, and the drive to Portsmouth is very scenic—especially during the Fall colors. Local arrangements are being handled by Tom Carnevale: [tcarnevale@shawnee.edu](mailto:tcarnevale@shawnee.edu). Travel and registration information can be found on pages 10 and 11.

### New Section Officers for 1997-98

In an election conducted early this year by the MAA, Doug Faires, Youngstown State, was elected Section Governor for a three year term which began July 1. As such, he will serve as a voting member of the the MAA Board of Governors and report back to the Section. He succeeds Dave Kullman, Miami.

Other officers began their terms for 1997-98 effective with the close of the Spring 1997 Section Meeting. Leo Schneider, John Carroll, assumed the position of President, after having served as President-Elect for the last year. Similarly, Janet Roll, Findlay, became Secretary-Treasurer after serving as Secretary-Treasurer-Elect. Biographical sketches appear on page 4.

Barbara Ashton, Wittenberg, began her term as Past-President, and also chairs the Teaching Award Committee. John

Michel, Marietta, moved on to chair the Nominating Committee. Dick Horwath completed two terms as Secretary-Treasurer.

At the Business Meeting at the Spring Meeting, Roger Marty, Cleveland State, was elected to fill the position of President-Elect, and Thomas Gantner, Dayton, was elected to be a member of the Program Committee for a three year term.

The senior member of the Program Committee serves as Chair. This year that person is Judy Palagallo, Akron. She and the committee have prepared the fine program which is detailed inside.

A number of other assignments have been made by Leo. They are listed on page 5. Leo reports how impressed he was at how Section members were so willing to serve. Many thanks to all who have served the section so well.

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## President's Column

In this first President's column I would like to thank the Nominating Committee and every member of the Ohio Section for giving me the opportunity to serve as Section President this year. My special thanks go to Barbara Ashton who helped so much in the transition of duties.

Our spring meeting at Youngstown was very well received by all who attended. We all learn from our mistakes, so that meeting provided me with my first presidential learning experience: In my closing remarks I forgot to publicly thank Floyd Barger for all his work in local arrangements for the meeting. Let me do so at this time. Thanks, Floyd!

The spirit of cooperation in the Ohio Section certainly manifested itself to me this April and May when I asked Section members to volunteer their time and talents to the section as I made appointments to our committees. The reaction makes me proud to be a member of this section!

Our summer planning meeting was held in June in Portsmouth. The Riffe Center at Shawnee State where our October 24-25 talks and banquet will be held is a beautiful facility! Section meeting dates and locations are set for the next few years. So long as we receive about two new hosting invitations per year, our future meetings will continue to be well-planned.

At the Section Officers' meeting in Atlanta I learned the next MathFest is scheduled for Toronto in mid-July. Please note the departure from the traditional month. Toronto is a very interesting place to visit with something for everyone. It is an easy drive from anywhere in Ohio.

I note that all six USA participants in July's International Mathematical Olympiad received silver or gold medals. Some were from mid-American states not regularly listed among the winners, and that shows how wide-spread is our MAA search for young mathematical talent.

At MathFest 97 in Atlanta I met a former young colleague who has moved to another section. When I asked about her new position, the first thing she described was her first section meeting there. In contrast to it, she claimed that in Ohio she had been introduced to half our attendees by the end of our meeting. Let's keep up that feeling of welcome toward our new members in Ohio!

*Leo Schneider*  
Section President

## Governor's Report

The MathFest in Atlanta was my first personal experience at the workings of the MAA on the national level. It was somewhat different from what I expected, and you might be interested in some of the things that I found interesting about the process.

New Governors are given an orientation for about 3 hours on the evening before the meeting by the Executive Director, President, Secretary, Chair of the Audit and Budget Committee, and Chair of the Committee on Sections. This is very helpful and gives the new recruits a chance to ask questions that would be awkward at the Board of Governor's meeting. Due to US Airways annulling my flight at the last minute, I arrived late to this orientation, but I missed only the dessert and coffee, not the substance.

The Executive and Finance Committees of the MAA meet a day earlier than the Board of Governor's and iron out any final details for the meeting. Most of their work, however, was done at a meeting at the Headquarters in May.

The Board of Governor's is very large, 50 Governors in addition to the Executive Committee members, and to accomplish in one day all that it needs to do it must be run in a very efficient manner. Gerald Alexanderson, the MAA President was unable to attend the meeting because of severe back pain and Ken Ross, the immediate past President presided in his stead.

A 148 page Agenda with committee reports was distributed to the Governors before the meeting and a revised Agenda reflecting a reordering of items was passed out at the opening of the meeting, which began at 9:00 on Friday, August 1. The items were covered in efficient fashion with sufficient time for questions and remarks, but without the lengthy deviations from the main topic that one frequently finds in academic meetings.

Of particular interest were the reports concerning the finances of the Organization. Because of new accounting procedures and the outsourcing of various services, the MAA has been running an operating deficit for the past two years, and this will continue for 1997. However, income from fundraising, investments, and the fact that the mortgage of the Headquarters facility will soon be fulfilled ensure that the MAA is on firm financial ground.

(cont →)

Midway through the afternoon, Walter Mientka and Titu Andreescu arrived from the International Mathematical Olympiad competition in Argentina and gave a report on the fine showing of the US team. Leo has information about this in his President's Report, and I will not elaborate, except to say that it provided a nice break in the meeting.

All the business on the Agenda was concluded by the scheduled adjournment time of 5:00 pm, and even those of us who were new to the Board felt that they had a much better grasp of the workings of the MAA and its committee structure.

I feel that the primary task of the Section Governor is to provide a liaison between the Section and the National organization. Please let me know if you have items of concern for the National MAA, and also if I can provide you with information about the workings of the Headquarters and the MAA Committees. A copy of the Agenda for the 1997 MathFest meeting is listed on the Web copy of this report, so that you can see the topics that were discussed.

*Doug Faires*  
Section Governor

## OHIO FOCUS

The newsletter of the Ohio Section of the Mathematical Association of America; published twice yearly in time to reach members before the Fall and Spring meetings.

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Deadline for next newsletter is  
**February 15, 1998**  
Email copy preferred.

This information will also be posted, and updated, on the Section web page. Access from MAA On-Line or at URL <http://www.bgsu.edu/departments/math/Ohio-section/>

# Ohio Section Award for Distinguished College or University Teaching of Mathematics.

John S. Lancaster  
Marshall University



John S. Lancaster of the Department of Mathematics at Marshall University, Huntington, West Virginia is the sixth recipient of the prestigious Ohio Section Award for Distinguished University Teaching of Mathematics.

The award was presented during the Spring Section meeting held at Youngstown State University. The award is presented to those who are widely recognized as successful teachers, have an influence in their teaching of mathematics beyond

their own institutions and foster curiosity and excitement about mathematics in their students.

Over the span of several decades, Lancaster has consistently earned superlative student evaluations of his teaching. It is not uncommon for students to take his courses as electives motivated by his ability and reputation of making mathematics a challenging yet thoroughly enjoyable learning experience. A student writes, "he shows an uncommon concern toward his students, he always takes time to listen to me about my struggles, academic and otherwise." A hallmark of his teaching is that "he has an amazing ability to make lucid the most involved and technical topics; he can see his field through the eyes of a beginner and is able to communicate mathematics at an appropriate level." These student testimonials illustrate why Dr. Lancaster was awarded the prestigious Reynold's Teaching Award at Marshall University, recognized uniquely as the outstanding professor of the year.

In addition to Marshall, Lancaster taught part time for nearly nine years at Shawnee State University in Portsmouth, Ohio. Nearly six of those years included teaching at the Southern Ohio

Correctional Facility in Lucasville. Making the effort to teach mathematics to some of the state's most hardened inmates reflects a deep commitment to improving the quality of life for all students. Several incarcerated students who completed their sentences have gone on to productive citizenship thanks, in part, to the practical mathematics training they received from Lancaster.

During his tenure at Marshall, Lancaster has served as department chair, undergraduate and graduate advisor and has served on countless master's degree oral examination committees. He has supervised several Yeager (honors) senior projects. Recently, under his direction, a senior student project was published in the Pi Mu Epsilon undergraduate journal.

Other mathematical activities include co-authoring a National Science Foundation grant which funded a NeXT computer lab equipped with Mathematica as well as new course developments in vector calculus and computer calculus. During his career, Dr. Lancaster has published several papers in refereed journals. He has consulted for the graduate mathematics program at Tennessee Technological University. He has been an active member of the Mathematical Association of America and has been a strong advocate for mathematical excellence throughout the Ohio valley.

Dr. Lancaster received his Ph.D. in 1972 from Indiana University in operator theory. He has been an active member of the Marshall University faculty since 1972. Dr. Lancaster and his wife, the former Barbara A. Donnelly, recently celebrated their 30th wedding anniversary. In addition to spending time with his three children and six grandchildren, he enjoys reading, golfing, and playing the piano.

*John Zimmerman, PIO*

## Call for Nominations for 1998 Award

Nominations for the seventh (1998) Ohio Section Award for Distinguished College or University Teaching of Mathematics are now being welcomed. Anyone may nominate an Ohio Section member for the award, but nominations from chairs or MAA Departmental Liasons are especially solicited. The awardee will be honored at the Spring Section meeting, and news of the Award will be announced in the Section newsletter, newspapers, and in other sources; and official letters will be sent to the appropriate persons at the awardee's institution.

The awardee will also be the Section candidate for the pool from which the recipients of the national MAA Awards for Distinguished College or University Teaching of Mathematics will be selected. There will be up to three such awards, each of which will be honored at the National Mathematics Meetings in January, 1999, and receive a \$1000 check and a certificate. The following are the rules and guidelines from the MAA.

Those eligible are College or University teachers assigned at least halftime during the academic year to teaching a mathematical science in a public or private college or university (from

two-year college teaching through teaching at the Ph.D. level), who have at least five years teaching experience in a mathematical science, and are members of the Ohio Section of the MAA. Those on approved leave (sabbatical or other) during the academic year in which they are nominated qualify if they fulfilled the requirement in the previous year.

According to guidelines from the MAA, nominees should be widely recognized as extraordinarily successful in their teaching, have teaching effectiveness that can be documented, have had influence in their teaching beyond their own institution, and foster curiosity and generate excitement about mathematics in their students.

Nominations forms and guidelines are available on the Section web page, at the Fall meeting, or from the chair of the Section award committee: Barbara Ashton. Please send this form and supporting information, postmarked by December 1, 1997, to: Barbara Ashton, Department of Mathematics and CS, Wittenberg University, P.O. Box 720, Springfield OH 45501. (937-327-7860, ashton@wittenberg.edu)

**Leo Schneider**  
**Section President**

Leo is an Ohio boy all the way. He was born in Cincinnati and earned B.S. and M.S. degrees in mathematics from Xavier University. In 1971 he completed his Ph.D. in ordinary linear differential equations at Case Western Reserve University under Alan Lazer. He joined John Carroll University in 1963, and is now



Professor of Mathematics and Computer Science. He also spent two years as lieutenant in the U.S. Army Ordnance Corps working in the developing area of numerically controlled machine tools.

He has served the MAA as Ohio coordinator for the MAA's American High School Mathematics Examination 1974-1987, was a member of the national committee that writes that examination 1980-1987, and 1988-1994 was chair of that committee and also of the committee that sets policies for

that examination and for its sister contests: the American Junior High School Mathematics examination, the American Invitational Mathematics Examination and the United States Mathematical Olympiad. He has most recently served the Section on CONSACT and the Program Committee.

His wife Susan is also a member of the MAA. They have two daughters: Carla, 18, and Rita, 14, and live in Mayfield Village, Ohio, which, Leo states, is a 20 minute drive, a 45 minute bicycle ride, and a 2.25 hour walk from his office at John Carroll.

Baseball is his favorite spectator sport, and the Indians have replaced the Reds as his favorite team, but he will watch major league baseball no matter who is playing. Leo loves to travel, especially by car, and if there is a mathematics meeting or major league baseball game at the end of the triptik, that is even better. He tries to see games in Detroit, Pittsburgh, and Yankee Stadium almost every season.

Bicycling and cross country skiing are his favorite forms of exercise. Hiking is a close second. Bridge is his favorite game. He and Sue have been in a social duplicate bridge group for 24 years.

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**Janet Roll, Secretary-Treasurer**

Janet earned her undergraduate degree at Otterbein College in Westerville. She did graduate work at Bowling Green and Purdue



in mathematics and computer science. Janet received her Ph.D. from Bowling Green in 1976, working under Charles Holland in the theory of ordered groups.

She has taught high school mathematics in Worthington—and earlier even some Spanish—and mathematics and computer science at Bowling Green, Ohio Northern, and now at Findlay. She served as division head at Findlay for five of her 15 years there. →

**Douglas Faires**  
**Section Governor**

Doug grew up in Western Pennsylvania and did his undergraduate work at what is now Youngstown State University. He received his Ph.D. at the University of South Carolina in 1970, and has been a member of the faculty at Youngstown State since that time. His wife Barbara is a mathematician at Westminster College and is active in the MAA. They have a daughter Erika, aged 15, and live in an isolated setting midway between Youngstown State and Westminster College.



Doug served as Ohio Section President in 1981-82. He has also served as chair of numerous sections committees, and is presently on the Committee on the American Junior High School Mathematics Examination, and on the Task Force on the MAA Placement Examination. He has been very active in Pi Mu Epsilon, the Mathematics Honorary Society, serving for 9 years on the Council and currently holding the office of President-Elect.

He is perhaps best known in the profession as a writer of textbooks. He has published 11 books, and many college students around the country had their first exposure to calculus with the text he and his wife wrote. Numerical Analysis, written with Richard Burden, is now in its sixth edition and has been used in universities throughout the world for nearly 20 years. A more recent book, Numerical Methods, published in 1993 and being revised for 1998, has been popular in Europe and been translated into German. This past year he completed a Precalculus book with Jim DeFranza of St. Lawrence University. He describes his textbooks as a means of reaching a larger audience since his teaching style and philosophy of mathematics are incorporated into each book.

Over the years, Doug has encouraged many Youngstown State University students to excel in mathematics while enhancing the profile of the University by having his students speak at national meetings, winning awards with frequency, and he has been a strong advocate for mathematical excellence throughout the state of Ohio.

His off hours are spent on a number of pursuits, including reading, cooking, wood working, making wine, and playing bagpipes. He has also been known to play the occasional game of cards, favoring those games that have the possibility of financial reward.

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Janet has served the Section and mathematics in many ways. In particular CONTEAC, the Program Committee (Chair 1988-89), Section President in 1990-91, Nominating Committee, to name a few, and has worked on the OCTM Contest for several years. She is shown here receiving her Past-President's gavel from outgoing President Barbara Ashton, right.

Janet lives in Ada (the home of Wilson footballs) with her husband Ron, who taught physics, and son Jim. They have just returned home from a 6 week long dream trip: a 10,000 mile drive to Alaska over the Alcan highway. Janet likes needlepoint ("when I have time!"), gourmet cooking with Ron, and regularly attends sporting events where Jim or her students are playing.

## 1997-98 Ohio Section Officers and Committees

### ELECTED OFFICERS

#### President

Leo Schneider, John Carroll  
216-397-4481, Fax: 216-397-3033  
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Home: 440-449-6820, Fax: 449-6841

#### President-Elect

Roger Marty, Cleveland State  
216-523-7158  
r0738%taonode@vmcms.csuohio.edu

#### Past-President

Barbara Ashton, Wittenberg  
937-327-7860, ashton@wittenberg.edu

#### Section Governor

Douglas Faires, Youngstown State  
330-742-1805, faires@math.ysu.edu

#### Secretary-Treasurer

Janet Roll, Findlay  
419-424-4686, roll@lucy.findlay.edu

### OTHER OFFICERS

#### Newsletter Editor and Webmaster:

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419-372-7450, Fax: 372-6092  
hern@math.bgsu.edu

#### Public Information Officer:

John Zimmerman, Ohio U-Lancaster  
614-546-7611 x231  
zimmerman@ohiou.edu

#### SUMMA Coordinator:

Dennis Davenport, Miami  
513-529-3555  
davenpde@casmil.muohio.edu

#### OhioMATYC Liaison to OhioMAA:

William Tulloss  
tullossb@cinstate.cc.oh.us

#### OhioMAA Liaison to OhioMATYC:

Sherwood Silliman, Cleveland State  
216-687-4684  
silliman@math.csuohio.edu

#### Archivist:

V. Frederick Rickey, Bowling Green  
419-372-7452  
rickey@math.bgsu.edu

### COMMITTEES

• denotes committee chair. The elected officers and these committee chairs are the voting members of the Executive Committee. Terms expire at the end of the Spring meeting. See the Bylaws.

#### Program Committee:

Judith Palagallo• Akron 1998  
330-972-7402, palagallo@uakron.edu  
Harold Putt Ohio Northern 1999  
Thomas Gantner Dayton 2000

#### Committee on Curriculum (CONCUR)

Anne Albert• Findlay 1998  
419-424-4543, albert@lucy.findlay.edu  
Robert Hovis Ohio Northern 1999  
Daniel Otero Xavier 1998  
Carol Schumacher Kenyon 2000  
Carl Spitznagel John Carroll 2000  
Olaf Stackelberg Kent State 1999  
Thomas Willke Otterbein 1998

#### Committee on Section Activities (CONSACT)

Thomas Dence• Ashland 2000  
419-289-5262, tdence@ashland.edu  
Teresa Bright Xavier 1999  
Bob Dieffenbach Miami Middltn 2000  
Jim Dillon Mt Union 1998  
William Higgins Wittenberg 1998  
Darrell Horwath John Carroll 2000  
Renee Koplou Wright State 1999

#### Committee on Student Members (CONSTUM)

Sherri Brugh• Mt Union 1998  
330-823-3561, brughsl@muc.edu  
Curtis Bennett Bowling Green 1998  
David Calvis Baldwin Wallace 1998  
Diane Groth Findlay 1999  
Barbara D'Ambrosia John Carroll 2000  
Brian Shelburne Wittenberg 1999  
Gordon Swain Ashland 2000

#### Committee on Teacher Education and Certification (CONTEAC)

James Sellers• Cedarville 1998  
513-766-7695  
SELLERSJ@cedarville.edu  
David Flaspohler Xavier 1999  
Phil Huneke Ohio State 2000  
Richard Laatsch Miami 1999  
Delene Perley Walsh 1998  
Sherwood Silliman Cleveland State 2000  
Donald Story Akron 1998

### OTHER COMMITTEES

\* denotes committee chair.

#### Nominating Committee:

John Michel\* Marietta 2000  
614-376-4819  
michel@mcnet.marietta.edu

Floyd Barger Youngstown 1999  
Thomas Hern Bowling Green 1998

#### Committee on Contests:

Bill Higgins Wittenberg AJHSME  
David Stenson John Carroll AHSME

#### ByLaws Committee

Darrell Horwath\* John Carroll  
216-397-4685, djh@jcvaxa.jcu.edu  
J. William Friel Dayton

#### Teaching Award Committee

Barbara Ashton\* Wittenberg  
Janet Roll Findlay  
Douglas Faires Youngstown  
John Lancaster Marshall

#### Local arrangements for meetings:

October 24-25, 1997: Shawnee State,  
Portsmouth  
Thomas Carnevale, 614-354-3205  
tcarnevale@shawnee.edu

April 17-18, 1998: John Carroll, Cleve-  
land

Darrell Horwath, 216-397-4685,  
djh@jcvaxa.jcu.edu

Fall 1998: Columbus State [Joint with  
OhioMATYC]

Larry Lance,  
llance@cougar.colstate.cc.oh.us

Spring 1999: Dayton

J. William Friel, 513-229-2511,  
friel@saber.udayton.edu

Fall 1999: Wooster

Charles Hampton, 330-263-2486,  
hampton@acs.wooster.edu

Fall 2000: Wittenberg

Brian Shelburne

**The Ohio State University  
Technology  
College Short Course Program**

The Ohio State Technology College Short Course Program - part of the Teachers Teaching With Technology Program - is now taking applications for mini-grants to partially fund 1 to 5-day hand-held technology-based short courses throughout the United States in 1997-98.

You may select to host courses for the developmental level (DEV), for the college algebra-trigonometry level (ALGT), for the precalculus and calculus level (PCALC-CALC), for the calculus level (CAS-CALC), for teacher educators (MTE), for modeling science (M2S), for statistics and data analysis (STATS), and other affiliated courses.

Participants will learn how to use Texas Instruments hand-held technology to enhance the teaching and learning of mathematics. Each course contains some use of the CBL and CBR to collect data for the purpose of mathematical analysis. Pedagogical, testing, and implementation issues are addressed in all courses. Academic year courses (1-3 days) are intended for individual or small groups of colleges, and 3 or 5-day summer 1998 courses are intended for wide-based audiences.

Courses of particular interest to math education college faculty, school lead teachers, school math coordinators, and school department chairs are the MTE (mathematics teacher educator) courses. They are designed for collegiate mathematicians and mathematics teacher educators teaching pre-service or in-service high school or middle school teachers. Courses are structured to meet the content and pedagogical needs of middle and high school pre/in-service audiences. Courses are developed around a variety of topic-oriented modules. The middle school modules highlight the use of the Texas Instruments Math Explorer Plus, the TI-8X, CBL, CBR and Cabri II. The high school modules will use the TI-83, TI-92, CBL, and CBR.

If you are interested in hosting a course, the mini-grant application form, short course prospectus, and Program details are available at: <http://www.math.ohio-state.edu/shortcourse>.

Hard copies of the forms can be obtained from Bert Waits and Frank Demana through Ed Laughbaum at The Ohio State University, 231 West 18th Avenue, Columbus, OH 43210, (614) 292-7223, or via e-mail at [elaughba@math.ohio-state.edu](mailto:elaughba@math.ohio-state.edu).→

**Undergraduate Research:  
Student Poster Session in January**

The CUPM subcommittee on Research by Undergraduates is sponsoring a student poster session at the January 1998 joint AMS-MAA meetings in Baltimore. Posters are invited which describe mathematical research projects of individual undergraduate students. Posters will be judged on the mathematical content and on the presentation. The committee would like to have posters presented in person by undergraduates from all across the country. Prizes will be awarded to all participants, and monetary prizes will be awarded for the best poster presentations by undergraduate students.

A title and a brief abstract (half page) of the poster should be mailed to Dr. Judith Palagallo, Department of Mathematical Sciences, The University of Akron, Akron, OH 44325-4002; email: [palagallo@uakron.edu](mailto:palagallo@uakron.edu). Please include the name of the advisor who directed the project, and note if the research was part of a funded project. The deadline for submission is December 1, 1997.

**CONTEAC**

The Committee on Teacher Education and Certification is seeking your input as we consider our next project. We are interested in information from faculty members at colleges and universities where course(s) are taught which are specifically geared for mathematics students who plan to teach at the middle school level. If you teach a course or know of a course like "Mathematics for Middle School Teachers", please contact me when you can.

*James Sellers, Chair*  
Science and Math., Cedarville College  
P.O. Box 601, Cedarville, OH 45314  
[sellersj@cedarville.edu](mailto:sellersj@cedarville.edu)

**Waits and Demana win National Service  
Award in Math. Ed.**

On April 16, 1997 Bert Waits and Franklin Demana, Ohio State, were presented the 1997 Glenn Gilbert National Leadership Award in Mathematics Education by the National Council of Supervisors of Mathematics at their annual meeting in Minneapolis. The award is in recognition of their many years of in-service mathematics education work with teachers nation wide. They founded the internationally recognized T-cubed Program which began in 1986 as the C<sup>3</sup>PC. They were pioneers in developing pedagogical methods using computer generated visualizations and incorporating the appropriate use of graphing calculators in the teaching and learning of mathematics.

*Ed Laughbaum*

**Fourth Annual  
Student Paper Contest**

As announced at the Spring 1997 meeting, our Section, through its Committee on Student Membership (CONSTUM) is sponsoring the fourth annual Student Paper Contest. Any undergraduate student at a college or university in the Ohio Section is eligible to enter. Entries completed as part of the undergraduate educations of students who will have been graduated not before calendar year 1997 will also be accepted.

Papers submitted for the Contest are to be expositions of a mathematical topic of the student's choice, and should reflect the high expository standards of the Monthly, College Mathematics Journal and Mathematics Magazine. Where possible, the paper should also give an historical perspective of the topic, as well as indicate the topic's impact on other branches of mathematics, the sciences or engineering. The papers are to be typed and double-spaced with normal font size and margins, and at most ten pages long. Papers should also include the author's institution and mailing address.

Judging will be based on mathematical content and expository style, with the expectation that the highest standards of English grammar and usage will be observed.

Monetary prizes will be awarded to the top three papers. Winners will be notified by mail no later than March 15, 1998 and the prizes will be awarded at the Spring 1998 meeting.

Papers must be received no later than January 31, 1998 by Prof. Sherri Brugh, CONSTUM Chairman, either in printed form by U.S. mail at Department of Mathematics, 1972 Clark Ave., Mount Union College, Alliance, OH 44601 or in TeX format by email at [brughsl@muc.edu](mailto:brughsl@muc.edu).

Last year's award winners were: First prize: Lynda Kistler. "The RSA Cryptographic System", Youngstown State U., Prize \$70; Honorable Mentions: (tie for second place) \$40 each: Deborah Anne Frank. "Congruences and Recurrences in the Restricted Partition Function  $d(n)$ ", Cedarville College, and Dan McWhorter, "A Presentation of Hyperbolic Geometry Through the Klein-Beltrami and Poincare Disc Models", Mount Union College.

Please encourage your undergraduate students to participate!

*Sherri Brugh*

## Miami Conference

The Twenty-fifth Annual Mathematics and Statistics Conference at Miami University, Oxford, Ohio, will be held September 26-27, 1997. This year's conference theme will focus on Math at Work. Invited speakers will include Terry Herdman, Andrew Sterrett and William Pulleyblank.

There will be contributed paper sessions on Friday afternoon and Saturday morning. Abstracts should be sent to Professor Charles Holmes, Department of Mathematics and Statistics, Miami University, Oxford, Ohio 45056, telephone: (513) 529-5818, fax: (513) 529-1493, e-mail: mathatwork@gw.muohio.edu, website: <http://miavx1.muohio.edu/~mstcwis/events.html>.

## Pi Mu Epsilon Student Conference

The Ohio Delta Chapter of Pi Mu Epsilon will hold its Twenty-fourth Annual Student Conference at Miami University September 26-27, 1997. Undergraduate and graduate students are invited to contribute papers, and should send abstracts to Professor Milton Cox, Department of Mathematics and Statistics, Miami University, Oxford, Ohio 45056, telephone: (513) 529-6648, fax: (513) 529-3762, e-mail: [cox\\_milt@msmail.muohio.edu](mailto:cox_milt@msmail.muohio.edu).

## Regional Dinner Meetings

I have been asked to report on our experiment in NW Ohio with the first Section regional dinner meeting. This follows the example of the Northeast Section. Their meetings range from having a talk on campus, preceded by dinner in the campus cafeteria, to a full course dinner at a local restaurant. All forms have worked well. They have been very successful. In that section each region is a state. In our case regions could be four corners, and the center, or whatever works.

On Oct 3, 1996, we had a talk at BGSU on "Differential Equations: Past, Present and Future", by Douglas Meade, U. of South Carolina. Doug was already coming to campus for a colloquium, so the department picked up travel expenses. Twenty six attended, including a high school teacher. Several more from off campus said they would have come, but there were conflicts. Many of us gathered for dinner prior to the talk in the Towers Inn restaurant on campus. See the Section web page for the sample announcement.

The reaction was positive, with some suggesting that we continue, and even offering their sites for future meetings. So I would like to encourage others to try this idea out.

*Thomas Hern*

## Campus News

### Bowling Green State University

C. R. Rao is the Distinguished Lukacs Visiting Professor. He will organize the 1998 Lukacs Symposium, April 24-25. Lev Klebanov, St. Petersburg, Russia, is Visiting Professor for fall. Eminent statistician Samuel Kotz, U. of Maryland, received the degree Doctor Honoris Causa. Sergey Shpectorov, whose specialty is groups and geometries, has joined the department. He was previously a post-doc at Ohio State.

Barbara Moses has returned from leave at Michigan State.

Andrew M. W. Glass has retired and moved to Cambridge, England.

Herbert Hollister died Sept. 5, 1997 at age 63. He taught at BGSU from 1965 to 1994.

Irvin Brune, mathematics education, died at 92. He retired in 1975.

Virginia Keen is a new Assistant Professor in mathematics education. She received her Ph.D. from Michigan State University in 1994.

### John Carroll University

Dr. Dena Cowen is Visiting Assistant Professor of Mathematics. She received her Ph.D., in topology, from Johns Hopkins University in 1997.

### Marshall University

John Drost has been promoted to Full Professor. Alan Horwitz has been granted tenure.

### Miami University

Denka Kutzarova, of the Bulgarian Academy of Sciences, is Distinguished Visiting Professor for 1997-98. Dr. Kutzarov's specialty is functional analysis.

David Sobecki is an Assistant Professor at the Hamilton Campus. Dr. Sobecki earned his Ph.D. in functional analysis at Bowling Green State University in 1995 under Neal Carothers.

Professor Robert Smith will be on leave during the fall semester. He will spend part of the term as a visiting scholar at the Miami University Dolibois European Center in Luxembourg.

Professor Zoltan Balogh will be on leave during the spring semester.

### Shawnee State University

Zhanbo Yang, Associate Professor of Mathematical Sciences, will be on leave for 1997-98. He'll be doing research in topology and mathematics education and reuniting with his thesis advisor.

### University of Akron

Dr. Douglas Cameron is Associate Chair of the Department and received the Buchtel College of Arts and Sciences Service Award. The College Outstanding Teacher Award was presented to Dr. Kevin Kreider. Dr. Kreider and Dr. John Heminger received NASA Summer Fellowships and spent the summer at NASA Lewis in Cleveland. Dr. Adam Lewenberg spent the summer at the Czech Academy of Sciences in Prague working on problems involving partial groups. Dr. Abdullah Abonamah and Dr. Richard Einsporn were granted Faculty Improvement leaves for the Fall Semester of 1997.

Michael Perry, an applied mathematics graduate student, presented "On the brink of bankruptcy" at the MathFest. He received a \$100 PME award sponsored by NSA..

Dr. Laura Gross is Assist. Professor and a member of the Div. of Applied Mathematics. Visiting faculty: Professor G. M. Saha, Chair, Department of Theoretical Statistics and Mathematics, Indian Statistical Institute in Calcutta, Visiting Research Professor; Dr. Vern Leininger, Dr. Dmitry Golovaty, Dr. Brian d'Auroil, Dr. Hokwon Cho, and Mr. Darrel Ulm, Visiting Assistant Professors; Dr. William Clary and Ms. Deborah Okonieski, visiting instructors. Mr. Brian Hennings is Associate Lab Manager.

Dr. Donald Story spent much of the summer working on Algebra Review tutorial for the WWW. He is also continuing his work on the WWW tutorial e-Calculus. (Both tutorials can be viewed at <http://www.math.uakron.edu/~dpstory/>.)

### University of Findlay

Anne Albert and Judy McCrory have been named co-directors of the mathematics area.

### University of Toledo

Robert Jackson, who served as chair from 1963, died July 30 at age 88. He retired in 1974.

Martin Kummer, 60, died April 19, 1997. Carroll Amos, retired since 1974, died at the age of 91.

## Fall Section Meeting Program October 24-25, 1997

### Friday

Noon-4:30 Registration  
Book Exhibits

12:15-1:15 Committee Meetings  
CONSTUM, CONSACT, CONCUR, CONTEAC  
Program Committee

1:30-1:45 Welcome, Announcements

1:45-2:45 **Invited Address:**  
"The Aperiodic Zoo"  
Marjorie Senechal,  
Smith College

2:45-3:15 Coffee Break

3:15-4:45 Special Session:  
"Symmetry and Tilings"  
David Kullman, organizer

3:15-4:45 **Contributed Papers**

3:15-4:45 Executive Committee

5:00-5:45 Swap session on non-traditional outlets for  
publication. James Sellers, organizer

5:00-5:45 Survey Report and swap session, by CONCUR  
Anne Albert, chair

6:00-8:00 **Banquet**

8:15-9:00 After dinner talk  
"Rickey and Robinson by the Numbers"  
Dr. Jerry Holt, Dean of Arts & Sciences  
Shawnee State.

### Saturday Morning

8:00-10:00 Registration

8:00-9:00 Coffee and Donuts

8:15-9:00 Department Chairs and Liaisons Meeting  
Executive Committee

9:15-10:15 **Invited address:**  
"The Search for an Aperiodic Tile"  
Marjorie Senechal

10:15-10:40 Coffee break

10:40-11:40 **Contributed Papers**

11:45-12:45 **Ohio Teaching Award Address:**  
"A Mathematician, Historian, and Teacher  
shares his Thoughts, Experience, and Advice  
About Mathematics, History, and Teaching."  
V. Frederick Rickey, Bowling Green

*Check the web for updates (<http://www.bgsu.edu/departments/math/Ohio-section/>).*

### Symmetry and Tilings

Professor Marjorie Senechal is Louise Wolff Kahn Professor of Mathematics and Director of the Program in the History of the Sciences, Smith College, Northampton, MA. Check out her web page at <http://math.smith.edu/~senechal/>

#### Abstracts

#### The Aperiodic Zoo

Since Penrose's unexpected discovery, twenty five years ago, of two tiles that tile the plane only in a nonperiodic manner (if his matching rules are obeyed), many other examples of "aperiodic tiles", in arbitrary dimension, have been discovered. Several kinship structures have been proposed for the denizens of this aperiodic zoo. But these creatures may be inherently unclassifiable.

#### The Search for an Aperiodic Tile

The first set of aperiodic tiles consisted of over 20,000 different shapes; within a decade Penrose had reduced the number to two. This immediately prompted the question of whether there is a SINGLE shape that tiles  $E^n$ , for some  $n$ , only nonperiodically. Several examples have been found, but they turn out to be not quite "what we were looking for". In fact, these examples are forcing us to define what we are looking for, a process that is still underway.

### Special Session

on

#### Symmetry and Tilings

In honor of our keynote speaker, Marjorie Senechal, there will be a special session of papers on the theme of Symmetry and Tilings at the Fall Meeting on Friday afternoon.

If you would like to contribute a paper on any aspect of geometric symmetry or tilings, please send a title and brief abstract to: Prof. David Kullman, Department of Mathematics and Statistics, Miami University, Oxford, Ohio 45056. e-mail: [dekullman@miavx1.muohio.edu](mailto:dekullman@miavx1.muohio.edu) fax: (513) 529-1493.

If we are unable to schedule your paper for the special session, it will be forwarded to the Program Committee for inclusion in a general session of contributed papers.

#### Swap Session: Non-Traditional Outlets for Publication

This session will be a highly informal, open session in which audience participation will be crucial. Please come prepared with ideas for non-traditional publication avenues and with questions you might have for the others.

*James Sellers*

### Call for Contributed Papers

Two contributed paper sessions are planned for the fall meeting. Papers on any topic in mathematics or related areas are encouraged. Reports on projects, research announcements, or anything else you believe would be of interest to those in attendance are welcome. Contributors should send a title and a brief abstract by October 15 to: Prof. Judith Palagallo, Dept. of Mathematical Sciences, The Univ. of Akron. Akron, OH 44325-4002, email (preferred): [Palagallo@uakron.edu](mailto:Palagallo@uakron.edu), Fax: 330-374-8630. The contributed paper program will be posted on the web page prior to the meeting.

#### Survey Report and Swap Session: CONCUR's look at lower undergraduate mathematics courses

CONCUR (Committee on Curriculum) will give a summary of the results of a survey titled Lower Undergraduate Course Offerings. We will share what colleges and universities in the section are offering in courses below calculus, the use of technology, collaborative learning, writing, and other innovative teaching approaches, and questions on placement. Following a presentation on these topics, a swap session will allow further discussion of topics of interest to the audience.

*Anne Albert*



### Banquet

Seriously consider the Banquet. It will be held in the Vern Riffe Center for the Arts, Shawnee State's newest facility and site for all meeting activities. Cost is \$18.00, payable with preregistration (page 11).

### Buffet Menu

Assorted Hot and Cold Appetizers and Cash Bar (beer, wine, soft drinks)  
Tossed Salad with Dressings  
Three Bean Salad  
Mixed Fruit Salad  
Marinated London Broil  
Taragon Chicken Breast  
Stuffed Manicotti  
Oven Brownd Potatoes  
Rice Pilaf Almondine  
Sauteed Zucchini and Summer Squash  
Green Beans Almondine  
New York Cheese Cake  
Chocolate Mousse  
Assorted Fruit Tarts  
Coffee, Regular & Decaffeinated  
Hot and Iced Tea  
Chilled Lemonade  
Assorted Canned Sodas & Waters

### After Dinner Talk

"Rickey and Robinson by the Numbers," Jerry Holt, Dean of Arts and Sciences at Shawnee State. He is the author of "Rickey," a one-person play based on the colorful life of the Portsmouth native Branch Rickey who brought Jackie Robinson into the major leagues in 1947.

### A Mathematician, Historian, and Teacher shares his Thoughts, Experience, and Advice About Mathematics, History, and Teaching.

Fred Rickey received both the Section teaching award as well as a national MAA award in their first year, 1992. He is well known as a logician, historian of mathematics, and frequent speaker on the use of history in teaching.

### Abstract:

When my friend through history, Isaac Newton, was asked the secret of his success in mathematics he responded: By thinking continually about it. Without feigning to be in the same class, I will show that his advice applies to the study of the history of mathematics, to its use in teaching, and to teaching itself.

### Ohio Project NExT

Last spring, the Ohio Section initiated its own local version of the national Project NExT for new faculty members. We now have nineteen OhioNExT fellows. Of these, thirteen are also national NExT fellows. To be eligible, the only requirements are that a faculty member be in her/his first four years of teaching and have a strong commitment to teaching undergraduates. Applications for new OhioNExT fellows are now being accepted. Details and application materials can be found on the Section web page, or from John Michel.

Our first OhioNExT workshop was held on Thursday evening and Friday morning before the regular spring section meeting at Youngstown State, April 10-11, 1997. Activities got underway with a banquet on Thursday evening, followed by lively discussion about tenure and professional development issues. Friday morning workshop sessions included one on incorporating history of mathematics into courses by Fred Rickey of Bowling Green and one on grant writing by David Flaspohler of Xavier. (More details, as well as photos of the participants, can be found on the Section web page.)

A full program of NExT workshop activities has been planned for Thursday evening and Friday morning, October 23-24, preceding the Ohio Section fall meeting at Shawnee State. Fellows will be housed on Thursday night at the Ramada Inn (at Section expense) and the banquet will be held at 7:00 p.m. at the Riffe Center on campus. Friday morning, the workshop activities at the Riffe Center will include reports on their research activities by several of the Fellows followed by workshop programs by Aparna Higgins (Dayton) on her experiences leading undergraduate research and by Judy Holdener (Kenyon) on her insights into designing innovative computer projects to integrate into coursework. Higgins is a past recipient of the Ohio Sections award for distinguished teaching. She has supervised many successful student research projects. She has also served on the national MAA committee on student chapters. Holdener is a former Project NeXT fellow and taught at the Air Force Academy before moving to Kenyon. She has had considerable experience in developing significant student computer projects using both Mathematica and Maple. (More details about the program will appear on the Section web page.)

John Michel

### Spring Meeting

The Annual Section Meeting will be held April 17-18, 1998 at John Carroll in Cleveland. Mark your calendars now. Dick Horwath is in charge of local arrangements. Direct your book reps to him as they drop in to see you.

Frank Morgan will be the keynote speaker. He is well known for his innovative and effective teaching style and his lectures on soap bubbles. In 1993, he earned one of the first MAA awards for distinguished teaching. Presently he is on leave from his position as chair at Williams College to accept a one-year Visiting Professorship for Distinguished Teaching from Princeton University. He has been very involved with undergraduate research projects. He has published two texts: *Geometric Measure Theory*, and recently, *Calculus Lite*, a nontraditional calculus text. Think about your contributed paper. Contact Judy Palagallo or other members of the Program Committee. The preliminary program will be posted on the web page well ahead of the newsletter, and will be updated as time goes on.

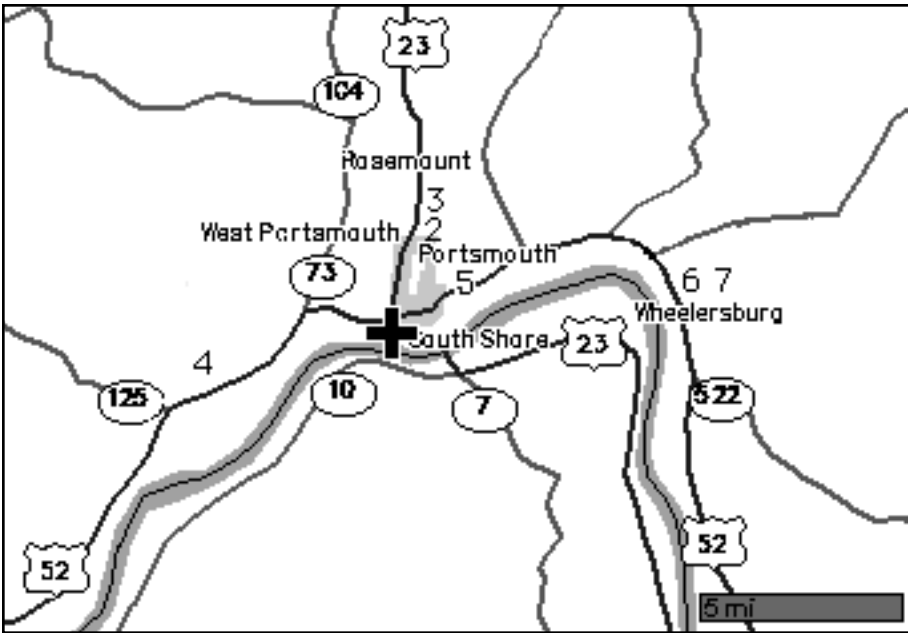
The business meeting will be held Friday evening after the banquet. The teaching award winner will be announced as well as the usual reports and election of officers. The recommendations of the Nominating Committee will appear in the spring newsletter.

Plan now for the student activities at the spring meeting. The student presentations will be on Friday afternoon as usual. Get your students working now on these talks. There is a trophy for the school with the most presenters. A pizza party for students will follow the presentations, followed by an ice cream social with surprise entertainment and the presentation of awards. There is a microcourse for students on Saturday. Abstract deadlines and other information will be announced by CONSTUM in the spring newsletter and on the web page. Sherri Brugh is the chair.

### CONTACT

The Committee on Section Activities is seeking an institution to host the 3-day summer short course for June, 1999. If interested, please contact either a member of the committee or the chair:

Thomas Dence  
tdence@ashland.edu



**Directions**

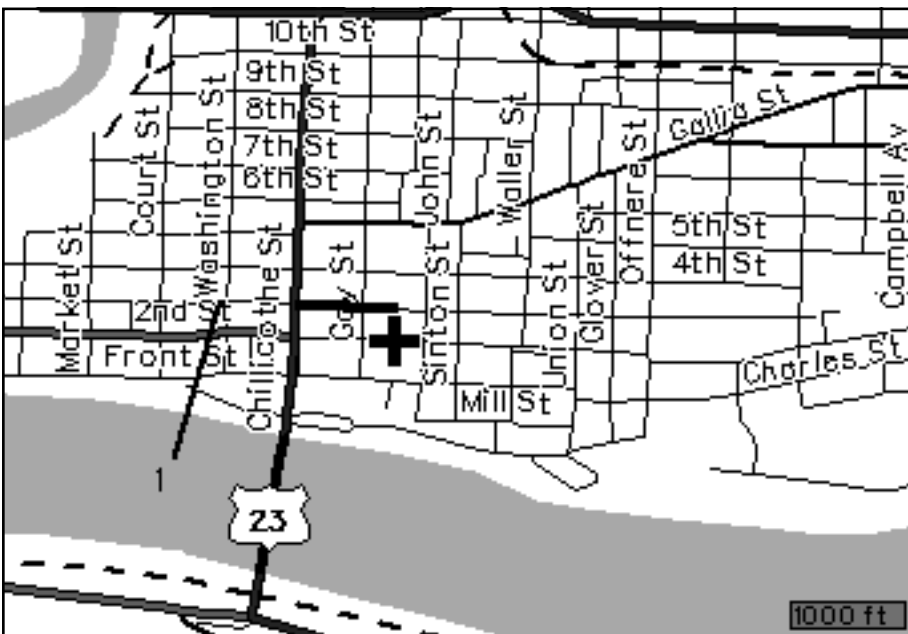
From most of Ohio take US 23 south. [From northeast Ohio, take I-71 to Columbus, and pick up US 23 south off of I-270. Dayton: US 35 east to US 23. Cincinnati: Route 32 east to US 23 (or US 52 east; or AA highway in Kentucky).] Distance is about 90 miles from Columbus and 120 miles from Cincinnati.

From the Intersection of US 23 and US 52, continue on US 23 Bus. to Third St., then left. The Vern Riffe Center for the Arts is between Second and Third Streets near Gay Street.

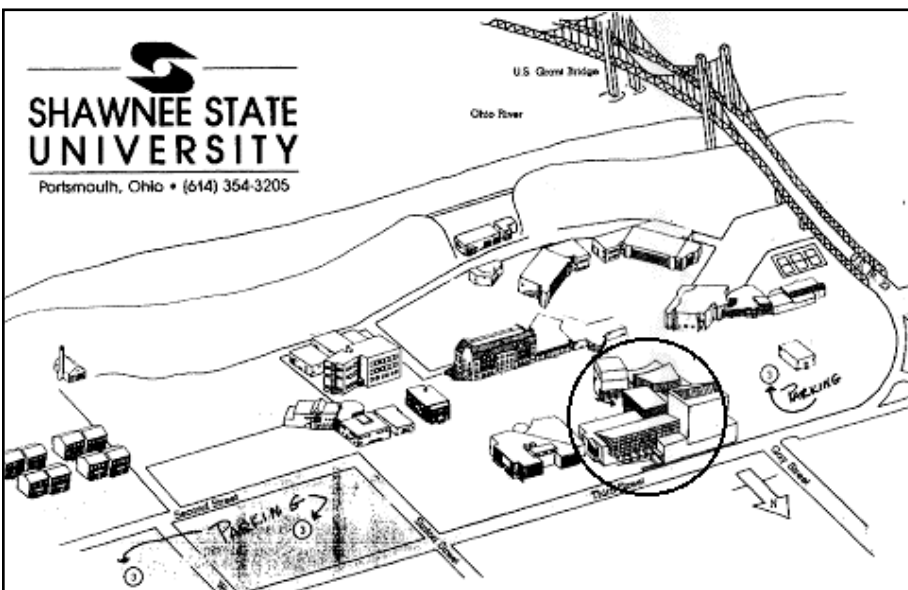
Parking should be adequate and is available in a lot adjacent to the building, in a lot on Gay Street near Third, and in two additional lots near Third and Sinton Streets. See map.

**Places to Stay**

Make your own reservations with motels listed below. Identify yourself as attending the MAA meeting at Shawnee State to get some of these rates. Prices do not include tax. Numbers are map locations.



1. **Ramada Inn** (Park here and walk!)  
711-2nd Street., Portsmouth.  
(614) 354-7711.  
Single/Double \$45
2. **Super 8 Motel** (2 miles to campus)  
4635 Old Scioto Trail (US 23),  
Portsmouth  
(614) 353-8880.  
Single \$42.30 /Double \$46.80
3. **Holiday Inn** (2.5 miles)  
US 23, Portsmouth.  
(614) 354-2851.  
Single/Double \$59
4. **The Country Inn Motel** (6 miles)  
US 52 West, Portsmouth.  
(614) 858-6616.  
Single \$30.45 /Double \$35.92
5. **Ett-Mar Motel** (2 miles)  
1600 Kendall Ave., off US 52  
Portsmouth.  
(614) 353-4121.  
Single/Double \$26
6. **Comfort Inn** (10 miles)  
8226 Ohio River Rd., Wheelersburg.  
(614) 574-1046  
Single/Double \$47.70
7. **Days Inn** (10 miles)  
8404 Ohio River Rd., Wheelersburg.  
(614) 574-8431  
Single /Double \$37.40



### Campus Profile

Shawnee State University was created as Ohio's thirteenth state-supported university in 1986. It is located on the northern fringe of Appalachia at the confluence of the Ohio and Scioto Rivers. The institution came into existence in 1975 as a merger of the Ohio University branch campus and Scioto Technical College, and became a state community college in 1977.

The university offers baccalaureate and associate degree programs in traditional academic disciplines, innovative interdisciplinary programs and technical and career-oriented programs. Present enrollment is approximately 3500 students.

The Department of Mathematical Sciences offers two bachelor of science degrees: one allows students to specialize in mathematics, and an interdisciplinary degree requires a concentration in mathematics and two natural sciences. The department offers courses that serve majors, and the general and developmental education programs. The department has ten full-time faculty members. See its web page on the Section web page.

*Thomas Carnevale*  
Department Chair

### "Statistics for the 21st Century" 1998 Lukacs Symposium

The world famous statistician C. R. Rao is the organizer for this special program of the Lukacs Symposium, which is in its eighth year. It will be held April 24-26, 1998 at Bowling Green. Twenty to twenty five outstanding invited speakers will give one-hour talks on the most important open questions and current directions in statistics. The talks will be accessible to both graduate students and researchers in statistics.

The following speakers have already accepted invitations: Alan Agresti (University of Florida), G.J. Babu (Penn State), N. Balakrishna (Mc Master University, Canada), P. Bickel (Berkeley), C.M. Cuadras (University of Barcelona, Spain), S. Geman (Brown Univ.), U. Grenander (Brown), T. Hettmansperger (Penn State), S. Karlin (Stanford), L. Le Cam (Berkeley), G.S. Maddala (Ohio State), V. Mandrekar Sethuraman (Florida State), S. Peddada (University of Virginia), K.R. Shah (University of Waterloo, Canada), N. Singpurwalla, (George Washington University), D.A. Sprott (University of Waterloo, Canada), M.S. Srivastava (University of Toronto), J.N. Srivastava (Colorado State), H. Toutenburg (University of Munich, Germany).

For more information and/or registration, please check the web page (<http://www-math.bgsu.edu/lukacs-sym/>) or contact:

*Gabor J. Szekely*  
Dept. Of Mathematics and Statistics  
Bowling Green State University  
Bowling Green , OH 43403-0221  
(419) 372-7474, Fax 372-6092  
gabors@math.bgsu.edu

### Meeting Registration

If you wish to attend the banquet, the deadline for receipt of registration is October 17, 1997. If you do not need a banquet registration, you may register later, including on-site registration.

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Clip or photocopy.

### MEETING REGISTRATION

Name \_\_\_\_\_ Phone \_\_\_\_\_

Institutional Affiliation \_\_\_\_\_ E-mail \_\_\_\_\_

Address \_\_\_\_\_ Faculty [ ] Graduate Student [ ]

\_\_\_\_\_ Undergrad [ ] Other \_\_\_\_\_

Meeting Registration (\$10, no fee for students) \_\_\_\_\_

Friday Evening Banquet Ticket (\$18) \_\_\_\_\_

Total \_\_\_\_\_

Make checks payable to Shawnee State University, and mail with this form to:

Prof. Thomas A. Carnevale  
Department of Mathematical Sciences  
Shawnee State University  
940 Second Street  
Portsmouth, OH 45662-4344  
(614) 355-2544

OR

e-mail a note with the above information to: [tcarnevale@shawnee.edu](mailto:tcarnevale@shawnee.edu)

## Calendar

### Ohio Section

October 24-25, 1997, Shawnee State U., Portsmouth.  
(OhioNExT, October 23-24)

April 17-18, 1998, John Carroll U., Cleveland.

October 9-10, 1998, Columbus State CC (with OhioMATYC)

March 26-27, 1999, U. of Dayton.

Fall, 1999, College of Wooster

Spring, 2000, Marshall U., Huntington WV.

Fall, 2000, Wittenberg U., Springfield.

### National MAA-AMS

January 7-10, 1998, Annual Joint Meetings, Baltimore.

July, 1998, Mathfest, Toronto

January 13-16, 1999, Annual Joint Meetings, San Antonio

January 19-22, 2000, Annual Joint Meetings, Washington, DC

January 10-13, 2001, Annual Joint Meetings, New Orleans

### Other

Miami Conference, "Math at Work", and Pi Mu Epsilon Student Conference, Sept. 26-27, 1997. Miami University, Oxford.

Indiana Section, October 18, 1997, Wabash College, Crawfordsville.

NCTM/OCTM November 6-8, 1997, Cleveland.

Ohio Statistics Conference, Nov. 8, 1997, Bowling Green.

AMATYC, November 13-16, 1997, Atlanta.

AMS, March 20-21, 1998, Louisville, KY.

Indiana Section, March 20-21, 1998, Ball State U., Muncie.

Allegheny Mountain Section, April, 1998, Clarion U., Clarion, PA.

NCTM, April 2-5, 1998, Washington, D.C.

BGSU Lukacs Symposium, April 25-26, 1998, Bowling Green, OH.

Michigan Section, May 1-2, 1998, Western Michigan U., Kalamazoo.

OCTM, October 21-24, 1998, Akron.

AMATYC, November 4-8, 1998, Portland, Oregon.

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Department of Mathematics and Statistics  
Bowling Green State University  
Bowling Green OH 43403-0221

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