



EPADEL

maa.org/epadel



A Message from Governor Kay Somers

This is my final Section meeting as Governor and I want to express heartfelt appreciation to my EPADEL colleagues for allowing me the opportunity to represent our Section. I also want to thank the wonderful EPADEL and national MAA folks with whom I've had the pleasure to work during the past three years.

Our Spring Section meeting will be at Moravian College on April 3. I'm especially happy to help host this meeting, which will be held in our new academic complex; I hope you will join us.

The MAA is a very active and dynamic organization. The MAA website (www.maa.org) has up-to-date information on new and ongoing programs. Look for information about national and section meetings, summer workshops, new MAA books, student activities, special interest groups, and much, much more.

The SIGMAAs (Special Interest Groups) are growing. An eighth SIGMAA, the SIGMAA on Quantitative Literacy (QL) was approved by the Executive Committee of the MAA at its November 2003 meeting, with the first meeting of this SIGMAA held at the JMM at Phoenix. Another SIGMAA, this one for High School teachers, will get off the ground at MathFest in Providence this summer. Please consider supporting one or more SIGMAAs. For more information on the SIGMAAs, look at the web pages at MAA Online: www.maa.org/SIGMAA/SIGMAA.html

Celebrate "The Mathematics of Networks (It's a Small World)" for Mathematics Awareness Month 2004. I hope to see you at Moravian on April 3.

A Message from President Dennis DeTurck

In the middle of February, the weather alternates between tantalizing hints of spring and cold gray days. But a sure harbinger of spring is the planning for the EPADEL spring meeting. This semester, we will be meeting jointly with the Pennsylvania State Mathematics Association of Two-Year Colleges (PSMATYC) at Moravian College. Even though the main EPADEL activity will take place on Saturday, April 3, we have been invited and I encourage everyone to try and attend the PSMATYC activities on Friday April 2.

Our Saturday activities will be highlighted by talks from Dorothy Wallace of Dartmouth, and our outgoing president, Annalisa Crannell of Franklin & Marshall College, on Artful Mathematics. We'll also have a special presentation and afternoon workshop by Deborah Hughes-Hallett on the new "Mathematics for Business Decisions" curriculum. Some other highlights will be a panel discussion about College Algebra on Friday evening, and the presentation of the newly-named James Crawford award for Distinguished Teaching on Saturday.

Our section has received some funding from the MAA to encourage graduate students to become more involved in section activities, and so I ask those of you with graduate students to encourage them to come to this spring's meeting: graduate students can apply (by writing to me at deturck@math.upenn.edu) to attend the meeting and lunch for free, as well as for dinner with our section's Project NExT group.

I'd also encourage everyone to visit the MAA website at <http://www.maa.org/programs> to explore the many professional development opportunities offered by the Association this year, ranging from computational biology to teacher training.

So much going on! I look forward to seeing you at Moravian in April!

Mark your calendars: Fall Meeting – University of Delaware – November 6, 2004

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Attention Students

The EPADEL Section's Fall Meeting will be held at Moravian College on April 3. A detailed program can be found elsewhere in this Newsletter. Become involved with the regional mathematics community and attend this meeting! The registration fee for students is only \$2. In addition to the invited talks, students may find the MAA book exhibit particularly interesting.

Graduate/Undergraduate Student Talks

There will be two student contributed papers sessions in which undergraduate and graduate students have an opportunity to give a mathematics talk geared to an undergraduate audience. If you are interested in participating as a speaker, please check the Section's webpage at www.math.upenn.edu/~epadel. The deadline to submit an application to give a talk is **Wednesday March 17**. If you missed the deadline, think of giving a talk at the fall meeting to be held at the University of Delaware on November 6, 2004.

Student Paper Competitions

The EPADEL Section invites undergraduate students (and their advisors) to submit entries for the **2004 Student Paper Competition**. Papers on any mathematical topic are eligible. Entries must have been written by undergraduate students at schools in the EPADEL area (Eastern Pennsylvania and Delaware). Papers may be expository or may present original research, and should be no more than about 20 pages in length. Jointly authored papers by undergraduate students are also eligible.

Each submission should include the author's name and address and the name of a faculty sponsor, and should be mailed by **May 15, 2004** to Dr. Samir Ouzomgi, Department of Mathematics, Penn State - Abington College, Abington, PA 19001 (215), 881-7552, e-mail: sxo2@psu.edu.

The papers will be judged during the Summer 2004. The winning author(s) will be recognized at the MAA EPADEL Section's Fall 2004 meeting, and will receive a prize of \$200.

Congratulations to Joel Mohler of Millersville University, winner of the 2003 Student Paper Competition. Joel's paper, "Geodesics on a Conical Drinking Cup with Lid", was written under the sponsorship of Dr. Ron Umble.

In addition to this competition, you may be interested in the nationally sponsored **Frank and Brennie Morgan Prize** for Outstanding Research. The deadline for submission to this contest is June 30, 2004. Find further information at http://www.maa.org/awards/morgan_nom.html

MAA Student Chapters

Do you have an MAA Student Chapter on your campus? If you don't, consider starting one. You'll need a minimum of five students and a faculty advisor. For information contact Alicia Sevilla, EPADEL Student Chapters Coordinator, at sevillaa@moravian.edu.

Math Horizons

Have you seen Math Horizons? Math Horizons is a magazine for students interested in mathematics. It is full of interesting articles. If your school has a bulk subscription, make sure you get to see it. Any undergraduate student who joins an MAA Student Chapter receives Math Horizons without extra charge.

The James P. Crawford EPADEL Teaching Award

In honor of his support of the EPADEL Section of the MAA and his exemplary career as a Mathematics Professor at Lafayette College, EPADEL's annual distinguished teaching award has been named **The James P. Crawford EPADEL Teaching Award**. James Crawford was a member of the executive committee of EPADEL and a recipient of our section's teaching award. The award is given annually to a faculty member who has demonstrated a high standard of classroom instruction.

Tax deductible contributions are being solicited to fund this award in perpetuity. Contributions made out to the Mathematical Association of America and earmarked for the James Crawford EPADEL Teaching Award may be sent either to the EPADEL Treasurer Barbara Bendl or directly to the national organization. The addresses are:

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Department of Mathematics, Physics, CS
University of the Sciences in Philadelphia
600 South 43rd Street
Philadelphia, PA 19104

Lisa Kolbe
Development Specialist
The Mathematical Association of America
1529 - 18th Street, NW
Washington, DC 20036

Nominations

We know that there are many excellent teachers of mathematics, but to be recognized by the MAA, they must be nominated by their colleagues. Please consider nominating a colleague, a respected former teacher, or an inspiring speaker for the 2005 James P. Crawford EPADEL Teaching Award. The nomination process is two-tiered. To initiate a nomination, the nominator must submit a one-page nomination form by December 1, 2004. The Selection Committee will screen the nominations, and before January 1 will invite some of the nominators to submit full nomination packets. The full packets should be completed with the help of the nominee's department chair, and submitted by February 1, 2004. Guidelines and nomination forms may be obtained from Barbara Bendl, USIP, 600 South 43rd Street, Philadelphia, PA 19104-4495, (215) 895-1120, b.bendl@usip.edu.

Project NExT

Project NExT (New Experiences in Teaching) is a national program for new or recent Ph.D.s in the mathematical sciences who are interested in improving the teaching and learning of undergraduate mathematics. Project NExT-EPADEL is the Eastern Pennsylvania & Delaware Section's version of the program. **Faculty members in our section who are within their first three years of teaching full time at a university, four-year or two-year college are invited to apply to become Project NExT-EPADEL Fellows.** In addition, Ph.D. students in our section who are within one year of completing their degree are invited to apply. The next meeting for the NExT-EPADEL Fellows will be April 3, 2004 at Moravian College, immediately following the Spring Section Meeting. The workshop is open to all. At the workshop, participants will discuss topics of special relevance to beginning faculty. This year's topic is **"Grants and grant-writing in the EPADEL Section"** and the workshop will feature presentations by individuals with current grants related to teaching and include a panel discussion of the grant-writing process. For more information and an application form, please see the NExT-EPADEL web page, <http://www.ship.edu/~deensl/NExT-EPADEL/>



Eastern Pennsylvania and Delaware Section
of the
Mathematical Association of America



and
The Pennsylvania State Mathematical Association of Two-Year Colleges

Spring Meeting
April 2-3, 2004
at
Moravian College

Friday, April 2

3:30 - 4:00	Registration Lobby, Hauptert Union Building
4:00 – 5:20	Panel Discussion: <i>College Algebra in Flux</i> Fred Miller (moderator), Lehigh Carbon Community College Linda O'Connor, Harrisburg Area Community College Dennis Ebersole, Northampton Community College UBC Room, Hauptert Union Building
5:30 – 6:15	PSMATYC Membership meeting UBC Room, Hauptert Union Building
6:30 – 7:30	Dinner Air Products Room, Hauptert Union Building
7:30	The Art of Mathematics Dr. Jerry King, Lehigh University UBC Room, Hauptert Union Building

Saturday, April 3

8:00-10:00	Registration Atrium, Priscilla Payne Hurd Academic Complex (PPHAC)
8:30-9:30	<i>Individualized Arithmetic and Introductory Algebra</i> John Samoylo and Dorothy Russo, Delaware County Community College Room 102, PPHAC
9:15- 9:30	<i>Welcoming Remarks</i> Curt Keim, Dean of Faculty, Moravian College Prosser Auditorium, Hauptert Union Building
9:30-10:30	<i>Applied Mathematics for Fun and Profit</i> Martha Siegel, Towson University Prosser Auditorium, Hauptert Union Building
	<i>Teacher Preparation in Mathematics Where are we now, where are we headed?</i> Ruth Collins, Delaware Technical and Community College Room 102, PPHAC
	Student Papers Room 116, PPHAC
10:30-11:00	Coffee break, MAA Book Display Atrium, PPHAC

11:00-12:00	<i>Teaching the Next Generation: Interdisciplinary Teamwork</i> Deborah Hughes Hallett, The University of Arizona Prosser Auditorium, Hauptert Union Building
12:00 – 12:15	Business Meeting and Presentation of the James Crawford Award Prosser Auditorium, Hauptert Union Building

12:15 - 1:30	Lunch Pavilion, Hauptert Union Building
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1:30-3:00	Workshop on Mathematics for Business Decisions Deborah Hughes Hallett, The University of Arizona Rooms 112 and 113, PPHAC
1:45 - 2:45	Math and Art: The Good, the Bad, and the Pretty Annalisa Crannell, Franklin & Marshall Prosser Auditorium, Hauptert Union Building
	Student Papers Room 116, PPHAC
2:45-3:00	Break
3:00-4:00	<i>Sharing Uncommon Ground: How Will the Case for Numeracy Affect the Mathematics Community?</i> Dorothy I. Wallace, Dartmouth Prosser Auditorium, Hauptert Union Building
4:00 - 4:45	Social time Atrium, PPHAC
4:30-6:00	Project NExT Workshop <i>Grants and Grant Writing in the EPADEL Section</i> Room 116, PPHAC

MAA SPRING MEETING BOOK SALE

Assortment of Recent Titles for Examination

SPECIAL DISCOUNT PRICES

Purchase Display Books & Enjoy Them Immediately

Order Books Postage-Free

!! Get great books and benefit EPADEL simultaneously !!

ABSTRACTS of Invited Talks and Workshop

Individualized Arithmetic and Introductory Algebra

John Samoylo and Dorothy Russo, Delaware County Community College

This presentation outlines the process for individualizing arithmetic and introductory algebra courses, allowing each student to learn a personal set of objectives at his/her pace while receiving individual help from an instructor. The process involves 1) identification of competencies and learning objectives, 2) development of a resource guide with a plan for learning the objectives, 3) development of a method for evaluating student mastery.

Applied Mathematics for Fun and Profit

Martha Siegel, Towson University

I will present a variety of applied mathematics projects sponsored by government, business, and industrial partners in which students individually or in teams have applied undergraduate mathematics to investigate a substantial problem from "the real world."

Teacher Preparation in Mathematics Where are we now, where are we headed?

Ruth Collins, Delaware Technical and Community College

A multitude of documents from a variety of professional societies speak to the pressing problem of the mathematical preparation of preservice teachers. This presentation looks at some current coursework, the content of these courses, issues of communication, and the bigger issue of "who will we have in our classrooms teaching the children math". Issues of distance learning will also be addressed.

Teaching the Next Generation: Interdisciplinary Teamwork

Deborah Hughes Hallett, The University of Arizona

We are now teaching students whose entire K-12 education took place against a backdrop of change in pedagogy and technology. One of the major drivers for change continues to be the needs of partner disciplines, as described in the MAA Curriculum Foundations project. This talk will describe the kinds of collaboration that can result from rethinking our courses for students going into other fields. The talk will be illustrated by a new course for business majors, Mathematics for Business Decisions, developed jointly by the departments of mathematics and finance at the University of Arizona, and the use of ConcepTests in calculus, pioneered by physicists.

Math and Art: The Good, the Bad, and the Pretty

Annalisa Crannell, Franklin & Marshall

Dust off those old similar triangles, and get ready to put them to new use in looking at art. We're going to explore the mathematics behind perspective paintings---a mathematics that starts off with simple rules, and yet leads into really lovely, really tricky mathematical puzzles. Why do artists use vanishing points? What's the difference between 1-point and 3-point perspective? What's the difference between a perspective artist and a camera? We'll look at all of these questions, and more. We'll solve artistic puzzles with mathematical theorems, using hands-on examples.

Sharing Uncommon Ground: How Will the Case for Numeracy Affect the Mathematics Community?

Dorothy I. Wallace, Dartmouth

The volume "Mathematics and Democracy" has sparked a one sided debate about the undebatable value of a quantitatively literate population. In this talk we will outline how the call for numeracy overlaps with the goals of mathematics education and how various institutions have approached the issue. We will touch on both large scale issues and also particular interventions in mathematics education that target goals of numeracy. We will open a conversation on how to improve the numeracy of students at our institutions without sacrificing the mission of traditional mathematics education.

Mathematics for Business Decisions Workshop

Deborah Hughes Hallett, The University of Arizona

The MAA has just published a sequence of two electronic texts for mathematics courses taken by freshman business majors. These are based on four major real-world business decision projects, two of which are related to results that won Nobel prizes in economics within the last ten years. We will take a guided tour of the e-texts, and discuss the rewards and challenges of teaching this new material. Participants will use computers for hands-on exploration of the projects, animations, streaming video clips, simulations, and Excel utilities that are in the e-texts Mathematics for Business Decisions that were discussed in the Hughes Hallett Lecture/Demonstration session. The presenters will be available to answer questions and discuss pedagogical aspects of the new approach to teaching.

Directions to Moravian College

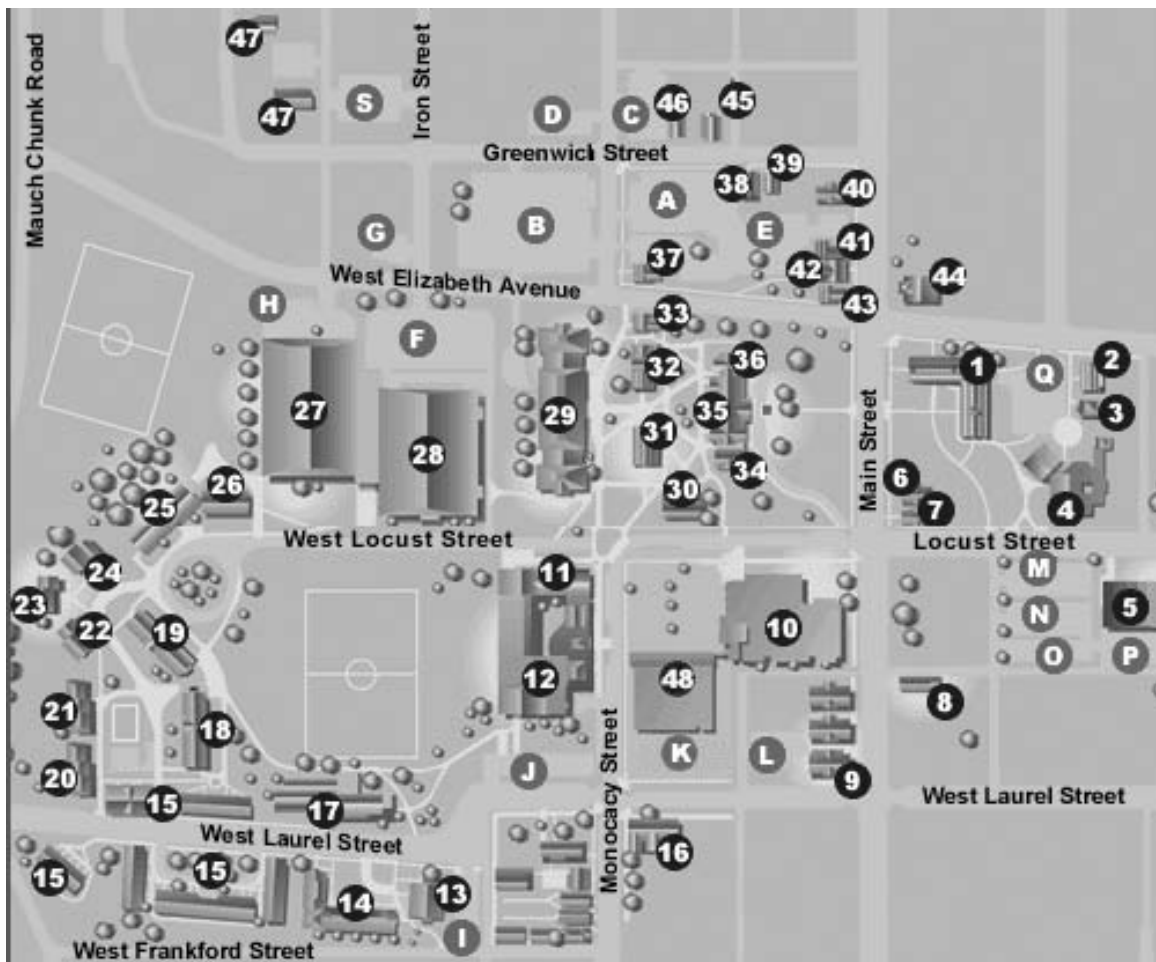
From the north: I-81 to I-380 to I-80 east. Take exit 302 A off I-80 onto Route 33 south. Follow Route 33 to Route 22, west into Bethlehem. To continue, see directions from Route 22 below.

From the south: Northeast Extension of the Pennsylvania Turnpike (I-476) to Lehigh Valley exit 56. Follow 22 East to Center Street. To continue, see directions from Route 22 below.

From the east: I-78 west to exit 71; 33 North to 22 west; west on Route 22 into Bethlehem. To continue, see directions from Route 22 below. Or take 80 West to exit 304. Follow 33 South to 22 West in Bethlehem. To continue, see directions from Route 22.

From the west: I-78 to exit 51, take Route 22 into Bethlehem. To continue, see directions from Route 22 below.

From Route 22: Exit at Center Street (Route 512); turn left off the exit ramp. Travel south for 2.4 miles and turn right onto Elizabeth Avenue at traffic light. Turn left onto Main Street; turn left at the next corner onto Locust Street; turn right into the College parking lot (lots M, N, and O below).



Registration Form

Name _____

First Time Attendee?

Email _____

☐ Yes ☐ No

School _____

Status: ☐ High School Instructor ☐ Undergraduate Student ☐ Graduate Student
☐ 2-year College Faculty ☐ 4-year College Faculty ☐ Emeritus

Membership: ☐ MAA ☐ PYSMATC

Registration Fee:

\$15.00 (\$17.00 on site)
\$2.00 (students, emeriti, & unemployed)
\$0.00 (full time faculty who are first time attendees) \$ _____

Dinner on Friday, April 2:

\$16.00 \$ _____

Lunch on Saturday, April 3:

\$10.00 \$ _____

Total: \$ _____

☐ Please check here if you would like to attend the Saturday afternoon workshop "**Mathematics for Business Decisions.**"

You will need a parking pass if and only if you will be attending the conference on Friday April 2. Please provide the address you would like your pass mailed to below.

Mailing Address:

Send pre-registration to:

Kay Somers
Department of Math and Computer Science
Moravian College
1200 Main St
Bethlehem, PA 18018

Pre-registration Deadline: Wednesday March 24, 2004



Michael Fraboni
Department of Mathematics
Moravian College
1200 Main St.
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EPADEL
maa.org/epadel



Spring Meeting – April 3, 2004

Moravian College

Bethlehem, PA