NEWSLETTER

OKLAHOMA/ARKANSAS SECTION

Volume XXX, No. 1　　February 2009

Table of Contents

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Distinguished College/University Teacher of 2008!

The following is a copy of a press release:

Dr. Danny Arrigo of the University of Central Arkansas named Oklahoma-Arkansas Teacher of the Year.

Each year the Oklahoma-Arkansas Section of the Mathematical Association of America honors one member of the two-state region as the teacher of the year. At the 2008 meeting on March 27 at the University of Arkansas – Fort Smith, Dr. Danny Arrigo of the University of Central Arkansas received the Section's 2008 "Award for Distinguished Teaching of College or University Mathematics." In announcing the award, Dr. Joan Bell of Northeastern State University stated that "All of Dr. Arrigo's letters of support spoke highly of his teaching." One of his colleagues wrote:

"Dr. Arrigo is an outstanding teacher and scholar with immense creativity and drive that has led to his broad recognition as an extremely talented and charismatic teacher." Dr. Bell also stated that "Under Dr. Arrigo's

direction, in the last eight years nearly 20 different students have made over 60 student presentations at local, regional, and national meetings, with one of his students placing first in the 2004 OK-AR Section undergraduate student paper competition."

Newsletter Sponsors

The following entities paid a sponsorship fee to help offset the cost of publishing and mailing the postcards this year. The Section extends its appreciation for their support of the Section and its activities.

The University of Oklahoma
Graduate Studies in Mathematics

The Department has an active research faculty, with special strengths in Algebra, Applied Mathematics, Differential Equations and Control Theory, Geometry and Topology. There are approximately 70 graduate students, most of whom work as graduate assistants. The Department's Karcher endowment supports a variety of visiting speakers throughout the academic year.

Pure Mathematics. The Department offers both the M.A. and Ph.D. degrees, with a variety of options for research specialization. Most graduates pursue careers in university teaching or research, or teaching in 4-year colleges.

Applied Mathematics. The Department offers both the M.S. and Ph.D. degrees, allowing the student to specialize in any of a broad range of applications, such as applied differential equations and applied algebra. Most graduates pursue careers in teaching or in industry.

Mathematics Education. The Department offers a special option within the Ph.D. program to train students for research in undergraduate mathematics curriculum and pedagogy. Most graduates pursue careers in university teaching or research.

Location. The University is located in Norman, a comfortable city of 103,000, approximately a half-hour drive from downtown Oklahoma City.

Financial Aid. The Department offers graduate teaching assistantships, research assistantships, and fee waivers on a competitive basis.

For Information Please Write To:

> Director of Graduate Studies
> Department of Mathematics
> The University of Oklahoma
> 601 Elm Avenue, PHSC 423
> Norman, Oklahoma 73019
> Website: www.math.ou.edu

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Campus News and Notes

These submissions appear in the order in which they were received.

Northeastern State University
By Joan E. Bell

The Mathematics and Computer Science Department at NSU currently has 23 full-time faculty members. **Wendell Wyatt** retired in June, 2008. He completed 46 years as an educator (21 years teaching high school, 25 years in higher education, including 8 years at NSU). **Martha Parrott** was granted tenure. **John Diamantopoulos** won the faculty circle of excellence award in service

This past year, the department successfully completed its program review. Faculty are currently working on evaluating and implementing some of the recommendations.

Mark Buckles took 14 students in his senior seminar class to present their research at the 10th annual Oklahoma Research Day, which was held at the NSU campus in Broken Arrow.

This past year, 27 NSU students were initiated into the Oklahoma Alpha chapter of Kappa Mu Epsilon. The members of the Student Chapter of the MAA meet concurrently with the KME students. KME/MAA sponsored several speakers this year, including **Bill Kay**, member of NSU's chapter of KME since 1955, **Mark Buckles**, NSU, **Albert Striolo**, University of Oklahoma, **Deborah Carment**, NSU, **Chuck Pack**, Tahlequah Public Schools, **Peggy Hladik**, NSU, and **Misty Megee**, NSU. Students celebrated Pi Day by watching the movie "The Great Pi versus e Debate" while they enjoyed homemade pies brought by the faculty.

We have available a full-time position to teach primarily mathematics for the elementary teachers at our Broken Arrow campus.

University of Oklahoma
By Paul Goodey

The Department was very happy to add two new faculty and four new colleagues to the ranks of our postdoctoral visitors. Our new faculty

colleagues are **Keri Kornelson** and **Kasra Rafi**. **Keri** received her degree from the University of Colorado, held a VIGRE postdoctoral position at Texas A&M and subsequently a faculty position at Grinnell College before coming to OU. She works in harmonic analysis and dynamical systems. **Kasra** received his degree from SUNY Stony Brook. He held postdoctoral positions at the University of California - Santa Barbara, University of Connecticut and, most recently, at the University of Chicago where he was an L. E. Dickson Instructor. He works in Teichmuller Theory and Geometric Group Theory. We are very pleased to welcome both of them to the department.

Our new postdoctoral colleagues are Drs. **Dan Guralnik**, **Mike Jablonski**, **Maria Leite** and **Steven Spallone**. **Dan** received his PhD from the Technion, Haifa, he works in Geometric Group Theory. **Mike** received his degree from the University of North Carolina, Chapel Hill and studies the geometry of Lie groups. **Maria** received her degree from the University of Houston; she works on the theoretical and applied aspects of bifurcation theory. **Steven** got his PhD from the University of Chicago and works in representation theory and p-adic analysis. They are all excellent additions to the department and we are very happy to have them with us.

Congratulations go to **Teri Jo Murphy** and **Meijun Zhu** who were promoted to Full Professorships and to **Max Forester** and **Ralf Schmidt** who were promoted to Associate Professorships.

We are particularly pleased to be able congratulate **Andy Miller** on his University Good Teaching Award and **Teri Jo Murphy** on her Regents' Award for Superior Research. It is always rewarding to see our colleagues' work recognized by such prestigious awards.

Jonathan Kujawa, **Kimball Martin** and **Walter Wei** were on leave at various times during the year. All had productive times and enjoyed the freedom from teaching and administration while the rest of us kept the boat afloat.

Our undergraduate major numbers have grown rapidly in recent years and the overall demand for upper division and graduate courses remains very strong. We welcomed fourteen new graduate students into our various programs. Much of the recent success in graduate recruitment derives from our annual OU MathFest. This is a weekend recruiting event for all prospective graduate students. It is held each year at the end of January

and attracts students from all over the country. The university has also been generous in providing us with numerous graduate fellowships.

Oklahoma State University
By Dale Alspach

This year, **Birne Binegar** and **Jiahong Wu** were promoted to full professor. **William Jaco** was honored as a Regents Professor. Professor **Jaco** is also a fellow of the AAAS and the Grayce B. Kerr Professor of Mathematics. **Alan Adolphson** was named Vaughn Professor. After thirty-six years of service, **Hermann Burchard** retired in August. Professor **Burchard** taught almost all of the numerical analysis classes during much of that time.

Much of this year **Roger Zierau** will be in Australia pursuing research in representation theory. Several of the faculty have given addresses at international conferences this year. In one case, three OSU faculty members spoke at the same conference. **Roger Zierau**, **Leticia Barchini** and **Birne Binegar** were plenary speakers at the conference "Representations of Lie Groups and Applications" at Institut Henri Poincare, Paris, France in December 2008. In March of 2009, OSU will host a conference titled "Topology and Geometry of Knots".

University of Central Oklahoma
By Charlotte Simmons

This is another exciting year for the UCO Department of Mathematics. The department enthusiastically welcomed a new assistant professor this fall. Dr. **Michael Fulkerson** earned his Ph.D. from Texas A & M and has expertise in the area of Complex Variables. Additionally, Dr**. John Dollarhide**, a recent graduate of Oklahoma State University, is a visiting assistant professor in our department this year.

The department is currently conducting a search for the **John T. Beresford** Endowed Chair of Mathematics & Statistics. This position is a result of a generous gift to the university, the largest endowment in the history of UCO, by the **Beresford** family in memory of their recently deceased son.

Dr. **Jesse Byrne** and Dr. **Charlotte Simmons** were promoted to the rank of Professor at the beginning of the fall term. Congratulations are also due to Dr. **Cynthia Murray** for receiving the 2008 Sigma Xi Distinguished Research Award, to Dr. **Tracy Morris** for receiving a Pedagogical Grant from the UCO Office of Sponsored Research & Grants, to Dr. **Jeremy Thibodeaux** for receiving a $20,000 mini-grant from the IDeA Network of Biomedical Research Excellence (INBRE), and to Dr. **Charles Cooper**, who is the newly elected governor of the Oklahoma-Arkansas section of the MAA.

UCO strongly promotes undergraduate research, and the College of Mathematics & Science initiated a Center for Undergraduate Research and Education in Science, Technology, Engineering, and Mathematics (CURE-STEM) last fall. Dr. **Tracy Morris** is one of only four UCO faculty to be named a CURE-STEM Scholar. Last semester, five undergraduates from our department gave presentations at the OK-AR sectional MAA meeting, and our faculty are currently mentoring nine undergraduates on research projects. Ms. **Jennifer Stone** received a grant from the Educational Advancement Foundation to implement inquiry-based learning in our Foundations of Geometry courses. Additionally, the department hosted visits by Dr**. Michael Starbird** (University of Texas) and Dr. **Joseph Gallian** (University of Minnesota-Duluth), who shared their ideas for involving students in experiential education.

Our department offers the only degree in Actuarial Science in the state, and the program continues to flourish. In November, representatives from the national office of the Gamma Iota Sigma International Risk Management, Insurance, and Actuarial Science Collegiate Fraternity visited our campus for the chartering ceremony of the UCO chapter. Meanwhile, Dr. **Carol Lucas** and Dr. **Darlinda Cassel** (UCO College of Education) held a series of workshops for teachers in conjunction with their No Child Left Behind Improving Teacher Quality Grant from the Oklahoma State Regents.

The department hosted an NSF-CBMS conference on Knots and Topological Quantum Computing in July. Invited speakers included Dr. **Zhenghan Wang** (Microsoft), Dr. **Ara Basmajian** (Hunter College), Dr. **Steve Simon** (Bell Labs), and Dr. **William Jaco** (OSU). Fifty-four participants attended the five-day conference. The conference was so successful that a follow-up weekend conference will be held this year on

our campus. Contact Dr. **Charlotte Simmons** (cksimmons@uco.edu) for more details.

Finally, Dr. **Chris Christensen** (Northern Kentucky University) will speak on March 26 on "The Evolution of the Cryptologic Bombe." All faculty and students are welcome to attend.

Henderson State University
By Carolyn Eoff

The Henderson State University Department of Mathematics and Computer Science experienced a productive 2008.   We were very fortunate that former faculty member Dr. **Debra Coventry** was able to rejoin the department after a stint in Texas. Our department collaborated with the Southern Arkansas University Mathematics Department to organize a P-4 Mathematics Summit last September, hosted by HSU, where two and four year institutions from southwest Arkansas came together to discuss the mathematics curriculum for prospective elementary and middle school teachers. This was a successful conference; it was well-attended and there was good dialogue and consensus between the participants. Dr. **Duane Jackson** is still the Assistant to the President for Diversity at HSU but continues to teach mathematics as well. Dr. **Michael Lloyd** continues to serve as the OK-AR Section Newsletter editor. Dr. **Fred Worth** spoke at a national home school conference in Buffalo, New York during the fall semester. Both the HSU Computer Science Club and Math Club had active years. We were pleased to host the 2008 Arkansas Undergraduate Mathematics Competition and fielded two teams in the contest.   Our graduates continue to have success in their various endeavors, such as teaching public school mathematics, pursuing graduate degrees and working for various businesses such as Dillards and Axiom.

Cameron University
By Karla Oty

Dr. **Wayne Eby** (Ph.D., University of Maryland, College Park) joined our faculty in Fall 2008 as an Assistant Professor. His research interests are in working on Pompeiu problems, specifically on the Heisenberg group. In the Fall 2008 semester, Dr. **Karla Oty** returned to "just" being Chair of the Department of Mathematical Sciences after serving two years as both Interim

Dean of the School of Science and Technology and as Chair of the Department of Mathematical Sciences.

In 2008, Springer-Verlag published *Convergence and Applications of Newton-Type Iterations* by Dr. **Ioannis Argyros**. Two undergraduate students (now graduated), Ms. **Irene Corriette** and Ms. **Sabina Sadou**, contributed to the book by producing the numerical results for some of the exercises.

We are pleased to report that our Secondary Mathematics Education program review, written by Mrs. **Barbara Meyers** and Ms. **Sharon Christian,** was recognized with conditions in 2008. This is the best we could hope for as we started our Mathematics Education program in the Fall of 2007 and have just begun to collect data.

The fifth annual TORUS (Texas and Oklahoma Regional Undergraduate Symposium) will be held at Abilene Christian University (ACU) in Abilene, Texas on February 28, 2009. The hosting institutions are Cameron University, SOSU, ECU and Abilene Christian University. All are invited to attend and all undergraduate mathematics students are invited to make presentations; for more information see the web page at www.sosu.edu/st/math/Torus/Undergraduate_Math Conference.htm or email **Karla Oty** at koty@cameron.edu. TORUS is a conference designed to provide an opportunity for undergraduate students to present mathematical research projects and expository papers, to meet with more established mathematicians, to network with their fellow students, and to participate in Math Jeopardy. Partial funding for TORUS is provided by NSF grant DMS-0536991 through the MAA Regional Undergraduate Mathematics Conference program, www.maa.org/RUMC

University of Central Arkansas
By Ramesh Garimella

Last year was a memorable year for the Department of Mathematics at the University of Central Arkansas (UCA). For the 2008-09 academic year, the Department awarded 18 full-time and four half-time graduate teaching

assistantships in our graduate programs- MS in Applied Mathematics and M.A. in Mathematics Education. Each assistantship carries a 9-month stipend of $9,000 and tuition wavier of $2,500 per semester. The MS program in Applied Mathematics, which began in 2006 with much anticipation and excitement, graduated its first cohort of students last year. Five students received their MS degree in 2008. The first master thesis in the department was produced by **Timothy Bennett** entitled "*Growth and survival models for the alligator snapping turtle*" under the direction of Dr. **David Peterson**. In the 2008 calendar year, thirty six students graduated with a degree in mathematics from UCA.

Undergraduate/graduate research activities continue to be one of the focal points of the department, and has resulted in several presentations by the students at the Oklahoma-Arkansas Sectional Meetings of the Mathematical Association of America (MAA) , the National Joint Meetings of American Mathematical Society (AMS) and MAA and at a highly specialized meeting on Ordinary Differential Equations in Birmingham, AL. Undergraduate student **Luis Suazo** (mentored by Dr. **Weijiu Liu**) gave a talk and presented a poster, *Controlling the motion of charged particles in a vacuum electromagnetic field from boundary*, and mathematics and physics major **Sule Bode** (mentored by Dr**. Balraj Menon** of the Department of Physics and Astronomy) presented a poster, *Symmetries and Conservation Laws in General Relativity* at the national joint meetings of AMS & MAA held in Washington D.C. during January 4-9, 2009. Both **Suazo** and **Bode** came in top 20 of the 220 posters presented at the meetings. Each received a cash prize of $100 and a certificate of recognition. At the same meeting, **David Ekrut** and **Jack Fliss** (both mentored by Dr. **Danny Arrigo**) made a poster presentation, *First order Compatibility of the Schrodinger Cubic*. **Jackson Fliss** received an undergraduate research fellowship from the *Arkansas Department of Higher Education* to conduct research with Dr. **Danny Arrigo**.

Thanks to the funds from the *Arkansas Science and Technology Authority* and the *UCA Foundation*, the Mathematics Department initiated a summer program in mathematics and sciences called MSI'08, during the second week of July 2008. Faculty members from the Departments of Mathematics, Biology and Physics and Astronomy came together to help 30 high school students in central Arkansas with various hands-on

activities. Since the success of MSI'08, plans are underway to have a similar program for the coming summer.

Our search for a tenure-track statistician was successful and we are pleased to have hired Dr. **Pat Carmack**, a bio-statistician from Texas. Dr. **Danny Arrigo**, Associate Professor of Mathematics, received a distinguished teaching award from the Oklahoma-Arkansas Section of Mathematics Association of American in March 2008. Dr. **Linda Griffith**, Professor of Mathematics, received a $72,547 extension of her previous year's grant from the Southeast Arkansas Education Services Cooperative to continue her work on formative assessment. Also, in September 2008, she presented a paper at the International Assessment in Education Association Conference held at Cambridge, England. In the last eighteen months, six faculty members procured external funding of approximately $325,000 for scholarly activities. Productivity in the department is at an all time high.

University of Arkansas at Monticello
By Farrokh Abedi

Starting the Spring of 2009 the 5- hour calculus course Multi-Dimensional Calculus & Differential Equations will be taught in the newly proposed courses 3-hour Differential Equations and 3-hour Calculus III. This change is being made to facilitate transfer of credits since most universities and colleges teach this content in separate courses.

Victoria Tori Ryburn, M.S. University of Arkansas at Fayetteville, joined our faculty in Fall 2008 as an Instructor. **Tori** is a former UAM Summa Cum Laude math major.

Dr. **Charles L. Dolberry** was awarded tenure and promoted to Associate Professor. **Charles** joined UAM faculty on August, 2002. He received his Ph.D. from Auburn University in Linear Algebra in 2002. **Charles** completed his undergraduate degree in mathematics from University of Alabama, Tuscaloosa and a Master of Arts in Mathematics from University of Alabama in Huntsville.

Lowell Lynde and **Linda Chapman** will be making a presentation for middle level math teachers on "Multiple Ways of Finding the Area and Perimeter of Polygonal Regions" at the annual NCTM conference in

Washington D.C. on April 23. They will be assisted by **Cody Rowland**, UAM graduate and teacher at Star City HS. **John M. Burford**, also a graduate of UAM and former teacher at Camden HS, was to assist in this presentation. **John** was the first male African-American student to graduate with a degree in mathematics at UAM. **John** died in Las Vegas on Dec. 13, 2008. **John** was an extremely pleasant and hard-working student. He was a very precious individual and his loss was extremely devastating for all of us at UAM. **John Burford** was a resident of Fordyce. We are glad that he managed to go back to his hometown, Las Vegas, and spend the very short remaining part of his life with his mother, sister and friends

Section Minutes

for the 2008 Business Meeting
Reynolds Room, Smith-Pendergraft Campus Center
University of Arkansas-Fort Smith

The annual business meeting was called to order by chair **John Diamantopoulos**, University of Arkansas at Fayetteville, at 9:35 a.m., Saturday, March 29, 2008.   There were approximately 55 members present.

The minutes of the 2007 business meeting were approved with one minor correction. **John Watson**, Arkansas Tech University, gave the treasurer's report for 2007. He supplied copies of the yearly report submitted to the national office showing the following:

	Checking/Shares	Court CD
Beginning balances, 12-31-2006	$11,779.39	$15,712.27
Revenues during the year	$ 5,017.29	$ 689.81
Expenses during the year	$ 4,459.81	$ 1,500.00
Ending balances, 12-31-2007	$12.336.87	$14,902.08

Linda Braddy, East Central University, who was appointed to the treasurer's office beginning January 1, 2008, supplied an account of all receipts and expenditures from 1-1-2007 through 3-26-2008. All Section funds are deposited in the Pope County Educators Federal Credit Union, but will probably be moved to a financial institution in Ada, Oklahoma when the CD's mature in early June, assuming **Linda** is elected to continue as treasurer. As of March 26, 2008 the balance in the share-

checking account was $1,527.96, the balance in regular shares (savings) was $2,297.75, and the balance in the share CD was $7,770.05, giving a total of $11,595.76. This includes $8,634.52 in the operating account, $1,201.40 in Court funds (this is separate from the Court CD), and $1,759.84 in the faculty workshop account. The treasurer's report was approved. (Note: The section's new bylaws, approved by the Board of Governor's at MathFest in August, 2007, split the secretary-treasurer office into the two offices of secretary and treasurer. **John Watson** remained secretary-treasurer until January 1, 2008, when **Linda Braddy** assumed the duties of section treasurer).

John Diamantopoulos informed the members that **Charles Seifert,** University of Central Arkansas had completed audits of the treasurer's records for 2005 and 2006 and found them to be in order. **Robert Ferdinand,** East Central University had completed an audit of the treasurer's records for 2007 and found them to be in order.

Fred Worth, Henderson State University, gave the Governor's report. He summarized new publications, changes to the MAA Online, noted that there will be no increase in MAA membership dues in 2009, summarized the strategic plans for the national organization, gave some facts about the American math competitions and the mathematical study tours, and noted that our Section bylaw changes were approved at MathFest in August, 2007. He expressed gratitude to the membership for the opportunity to serve as governor.

The membership was informed that the election of a new governor had resulted in a tie vote. The national bylaws did not provide for a remedy and it was left to the section executive committee and nominating committee to resolve the dilemma. It was reported that **Charles Cooper,** University of Central Oklahoma, was chosen to be the new governor.

Charles Cooper, University of Central Oklahoma, gave the Department Chairs/Liaisons report. He presented the following resolutions from the chairs committee:

     Resolution #1: Be it resolved that the mathematics chairs group of the state of Arkansas and a similar Oklahoma group (to be formed) obtain information regarding alternative certification in their respective states, discuss and form recommendations regarding alternative certification, and communicate those recommendations to appropriate

state officials. Furthermore, that each state chairs group report at the next chairs/liaisons/chapter sponsors luncheon meeting in the spring of 2009 the results of this work.

Resolution #2: Be it resolved that the Section newly commit itself to providing dynamic leadership in actively addressing the need for elevating the mathematical preparation of all teachers of core-curricular mathematics; and that the Section authorize its Executive Committee:
1. To establish a Mathematical Task Force on Teacher Education, and,
2. To appoint a Steering Committee to activate that taskforce and to develop procedures for recruiting its members and for its operations, and,
3. Charge that task force with developing proposals for Section initiatives aimed at so alleviating the under-education of teachers of mathematics.

Both resolutions were adopted.

Cooper asked that the Executive Committee designate a new Chairs Committee chair, since he was no longer a department chair and a new State Liaison's Coordinator for Oklahoma since he would be assuming the post of Section governor in July. A discussion ensued about the state liaisons coordinators and a consensus was reached that they had relatively no function anymore and it was recommended that those particular positions for Oklahoma and Arkansas be discontinued. The executive committee will check on whether the national office communicates with the membership through section liaison coordinators or if information is sent directly to departmental liaisons, thus bypassing the section coordinators. **Cooper** expressed the need to establish a departmental liaisons list. He also read a "Math Awareness Proclamation" from the governor of Oklahoma.

Linda Braddy reported that three new Section NExT fellows, four past fellows, and two directors attended the Section NExT activities this year. On Thursday evening **Todd Timmons,** University of Arkansas-Fort Smith, gave a presentation on "Using history in a mathematics classroom", and **Linda Braddy** presented "Just say yes – a "rip-off" of Joe Gallian's Project NExT speech. Thursday's activities also included dinner and discussion. On Friday morning they attended the faculty workshop and Section NExT activities concluded with lunch and discussion.

Dan Sisk, Northeastern State University, gave the site selection report. Invitations have been received from Southwestern Oklahoma State University for 2009, John Brown University for 2010, and the University of Central Oklahoma for 2011. The meeting dates are March 27 - 28, 2009, March 26 – 27, 2010, and March 25 – 26, 2011. The proposed sites and dates were approved.

Michael Lloyd, Henderson State University, the section newsletter editor, reported that there was one newsletter ad sold giving $100 income, with expenses of $169.16, resulting in a deficit of $69.16 in producing the 2008 newsletter. He reported that nine department representatives submitted campus news reports, down from ten last year. He encouraged members to urge their chair to submit news next year.

Jill Guerra reported that there were fifteen undergraduate student papers presented. Judging procedures used to select the top three papers are similar to national procedures.

John Diamantopoulos, Northeastern State University, reported on the electronic proceedings and on the new Section website. He asked members to feel free to send him suggestions concerning the website.

Under new business, **Jill Guerra** reported that the executive committee had discussed ways to get more undergraduates involved in the annual meeting. After discussion it was decided that the new chair should appoint a student activity committee to plan activities for next year's meeting.

Allan Cochran, University of Arkansas at Fayetteville, presented the following nominations:

Past-Chair: **John Diamantopoulos,** Northeastern State University
Chair: **Jill Guerra**, University of Arkansas at Fort Smith
1st Vice-Chair: **Gerald East**, Southwestern Oklahoma State University
2nd Vice-Chair : **Frank Blume,** John Brown University
Treasurer: **Linda Braddy,** East Central University
Secretary: **Lee Turner,** Southern Nazarene University
Newsletter Editor: **Michael Lloyd,** Henderson State University

The chair, **John Diamantopoulos,** asked whether there were nominations from the floor. **Darryl Linde,** Northeastern State University, nominated

John Diamantopoulos for the office of secretary. There were no other nominations from the floor. Paper ballots were distributed to the members present and **Lee Turner** was elected. The nominees for the other offices were elected by acclamation.

John Watson received a round of applause for his service as secretary-treasurer for the past seven years.

Steve Hennagin, Ouachita Baptist University and chair of the Court Lecture Committee, nominated **Steve Butcher,** University of Central Arkansas, to serve on the Court Lecture Committee. He was elected by acclamation. **Hennagin** announced that **Lou Kaufmann,** a Polya Lecturer, has already committed to give the Court Lecture next year.

William Durand, Henderson State University, presented the following resolutions which were approved:

- **Be it resolved** that the Oklahoma-Arkansas Section of MAA expresses thanks to the faculty, staff and administration of the **University of Arkansas – Fort Smith** for their courteous hospitality in hosting the 70th Annual meeting of the association. Special thanks go to **Jill Guerra.**
- **Be it resolved** that the section expresses appreciation to **Fred Worth**, Governor, **John Diamantopoulos**, chair, and **John Watson**, secretary-treasurer, for carrying out their duties during 2007-2008.
- **Be it resolved** that the section expresses gratitude to **Kathy Pinzon**, University of Arkansas – Fort Smith, for her stimulating presentation at the student workshop on *Mathematical games and party tricks,* and to **Joe Gallian**, University of Minnesota – Duluth, for his challenging presentation at the faculty workshop on *Encouraging undergraduate research.* The section expresses gratitude to the faculty workshop panelists: **Danny Arrigo,** University of Central Arkansas, **Duff Campbell,** Hendrix College**, Andy Miller**, University of Oklahoma**, Kenneth Wantz,** Southern Nazarene University, and also to the student panelists who participated: **Shanda Fulmer,** University of Arkansas-Fort Smith (now in graduate school at the University of Arkansas – Fayetteville), **Devin Smith,** University of Central Oklahoma, **Luis Suazo,** University of Central Arkansas, **Cherith Tucker,** Southern Nazarene University, (now in graduate school at the University of Oklahoma), and **Dan Pinzon,** Cornell University, now

on the faculty at the University of Arkansas – Fort Smith. The section also expresses its appreciation to the student and faculty workshop committees for organizing these events, especially the committee chairs, **Kathy Pinzon** and **Myron Rigsby**.

- **Be it resolved** that the section conveys sincere appreciation to our invited speaker **Joe Gallian**, President of the MAA, for his stimulating lecture entitled *Breaking driver's license codes,* and to **David Wright**, Oklahoma State University, for his interesting N.A. Court Lecture entitled *Exploring Kleinian Groups.*

- **Be it resolved** that the section expresses thanks to **Michael Lloyd**, Henderson State University, for his service as newsletter editor.

- **Be it resolved** that the section expresses thanks to **Charles Seifert,** University of Central Arkansas, **Anne Fine**, East Central University, and the teacher award committees for the selection of outstanding mathematics teachers for the section to honor.

- **Be it resolved** that the section congratulates the following award winners:

Arkansas teachers of the year: Elementary School—**Angela Blue**, Ida Burns Elementary, Conway, AR; Middle School—**Trela Cook**, Pulaski Heights Middle School, Little Rock, AR; Secondary School—**Beth Jones**, Ramay Junior High School, Fayetteville, AR.

Oklahoma teachers of the year: Elementary School—**James Pratt,** Central Intermediate Elementary School, Oklahoma City, OK; Middle School—**David Moskal,** Jenks Middle School, Jenks, OK; Secondary School—**Jan Sturdevant,** Byng Junior High School, Byng, Ok.

Undergraduate presentations: 1st place: **Curtis McCully**, Southern Nazarene University; 2nd place: **Ted Swang**, University of Oklahoma; 3rd place: **Joe Mitchell**, University of Oklahoma.

Although not confirmed, we think the high scorer in the section on the Putnam exam: **Nicklaus Little**, Oklahoma Christian University.

Oklahoma-Arkansas Award for Distinguished Teaching of Mathematics: **Danny Arrigo**, University of Central Arkansas.

- **Be it resolved** that the section expresses gratitude to **Jill Guerra** and **Linda Braddy** for organizing and implementing Section NExT

activities at the meeting. The section also expresses its gratitude to Guerra and others who judged the undergraduate papers, and to all institutions and students who participated.

- **Be it resolved** that the section expresses thanks to **John Diamantopolous** for establishing and maintaining the electronic proceedings of the section meeting and the section website.
- **Be it resolved** that the section expresses thanks to everyone who served the section on a committee, or participated in planning the annual meeting, or presented a contributed paper.

Jill Guerra gave the following summary report:

63 students and 103 faculty registered for the meeting; 150 attended the banquet; 40 attended the luncheon; 31 students participated in the student workshop; 41 persons participated in the faculty workshop.

The meeting adjourned at approximately 10:40 a.m.

Preliminary Announcement
of the Seventy-First Annual
Meeting of the Oklahoma-Arkansas Section of

THE MATHEMATICAL ASSOCIATION OF AMERICA

Time and Place: Friday and Saturday, March 27 – 28 on the campus of the Southwestern Oklahoma State University, Weatherford, Oklahoma, with Section NExT activities and undergraduate student competitions beginning on the evening of March 26. See the Section website for additional information and updates:

Program: Contributed Paper Sessions:
1. General Sessions: *Subject matter for these sessions may be from any area of mathematics.*
2 - 5. Special Sessions: *Algebra, Analysis, Applied Math, & Topology.*
6. Special Session: *Mathematics Education and Classroom Notes.*
7. Special Session: *By Undergraduate Students.*
8. Special Session: *The Teaching of Mathematics, Danny Arrigo presiding.*

This is your invitation to present a paper at our 2009 MAA section meeting. *Deadline for the abstract of your paper is Friday, February 27, 2009.* You should indicate the particular session in which you desire to present your paper, though some adjustments in requests may be necessary. Time allowed per paper is 15 minutes. An Abstract Form is included in the Section newsletter and can also be obtained from the Section website. It should be sent directly to Lee Turner, Department of Mathematics, Southern Nazarene University, Bethany, OK 73008. Phone: 405-491-6364, Fax: 405-491-6689, e-mail: lturner@snu.edu.

Invited Address (3:30 pm, Friday, March 27): David Bressoud, Calculus as High School Course

Abstract: Over the past quarter century, 2- and 4-year college enrollment in first semester calculus has remained constant while high school enrollment in calculus has grown tenfold, from 50,000 to 500,000, and continues to grow at 6% per year. We have reached the cross-over point where each year more students study first semester calculus in US high schools than in all 2- and 4-year colleges and universities in the United States. There is considerable overlap between these populations. Most high school students do not earn college credit for the calculus they study. This talk will present some of the data that we have about this phenomenon and its effects and will raise issues of how colleges and universities should respond. David Bressoud is the current president of MAA.

N. A. Court Lecturer (8:00 p.m., Friday March 27): Louis H. Kauffman, Knot Theory - From the Alexander Polynomial to Khovanov Homology

Abstract: This is an introductory and historically oriented talk about knot theory. Knot theory studies the placement problem of classifying the embeddings of one space within another. The classical case of knots in three dimensional space is seen as the placement problem for a circle in the three-dimensional sphere. In 1928, James W. Alexander discovered a polynomial invariant of knots and links in three-dimensional space, that has since been known as the Alexander polynomial. In 1984, Vaughan Jones discovered an entirely new Laurent polynomial invariant of knots and links. Shortly after the discovery of the Jones polynomial, the

speaker discovered a remarkably simple state summation model, the bracket state sum and denoted by <K>, that can be used to construct the Jones polynomial. This talk will follow the bracket polynomial and some of its developments. In particular, we will show how to construct the bracket polynomial with nothing more than knowledge of high-school algebra and some knot and link diagrams. We will them apply the bracket to the trefoil and its mirror image and show that they are topologically distinct.

Faculty Workshop (8:30a.m. – 11:30a.m., Friday, March 27 - $15.00 fee): Building a Healthy Undergraduate Mathematics Program, by Laura Person, Potsdam University.

Abstract: In this session we will discuss the state of undergraduate mathematics programs, the factors which can contribute to the success of a program, what we can do to attract students to the programs, what kinds of jobs students can expect to find available as mathematics degree holders, and what kinds of skills employers and graduate schools value in our graduates.

Student Workshop (8:30a.m. – 11:30a.m., Friday, March 27 - free): Analyzing *Deal or No Deal*, by Bill Sticka, Southwestern Oklahoma State University.

Abstract: We will play a quick round of the TV game show *Deal or No Deal* and discuss some of the mathematical modeling that can be used to describe the game's decision-making processes. We will also examine the St. Petersburg Paradox.

Luncheon: 11:30 a.m. Friday, March 27 (**Reservations are needed for this luncheon**.)

Department Chairs/Heads/Liaisons/faculty sponsors of student chapters: Student Union, Skyview
Room (2nd floor). Cost: $10.00
Presiding: Myron Rigsby. University of Arkansas at Fort Smith

Banquet: Dinner will be at 6:00 p.m. on Friday Evening in the Student Union Ballroom (2nd floor).
Cost: $25.00 ($12.50 for undergraduate and graduate students)

Reservations for the Banquet or Luncheon Meetings must be received by March 13, 2009.

Registration Fee: Regular - $20, Students - $5, *(No P.O.'s please)* payable in advance or at registration in the 1st floor lobby of the Conference Center, Friday 8:00 a.m. – 3:00 p.m. & Saturday, 8:00 a.m. - 12:00 noon. **Note: Banquet and luncheon reservations will NOT be available onsite – these reservations must be made in advance**. In addition, please note that Regular Absentee Registration is requested of each section member not attending. An absentee or early registration form is included with the Section newsletter and can also be found on the Section webpage. Please mail your check (payable to MAA) and registration form to:

> Gerry East
> Mathematics Department
> Southwestern Oklahoma State University
> Weatherford, OK 73096

The Oklahoma-Arkansas Section NExT

is inviting applications for 2009-2010 Fellows. Project NExT is a program of the Mathematical Association of America to help new mathematics faculty adjust to their responsibilities as full-time faculty members. The Oklahoma-Arkansas Section NExT is a local version of this national program.

The 2009 Program will take place on March 26-27 at Southwestern Oklahoma State University as part of the spring meeting of the Section. The program will include various topics of interest to new faculty members from our Section. In particular, we will have sessions addressing teaching, research and service responsibilities. Fellows will participate in the 2009 and 2010 Section NExT meetings. For the 2009 meeting, lodging and dinner for fellows on Thursday, March 26 and a luncheon on Friday, March 27 will be provided.

Fellows must be full-time faculty in their first four years of teaching at the college/university level or a graduate student completing the Ph. D. in the current year. Interested applicants should send a letter describing their teaching, research and service interests and how they hope their participation in Section NExT will help them to meet their career goals. In

addition, applicants must submit a letter from their department head or dean expressing support and a commitment to provide funds for the Fellow's participation in both the 2009 and 2010 Section meetings.

Completed applications should be sent by March 2, 2009 to

> Jill E. Guerra
> Department of Mathematics,
> University of Arkansas Fort Smith,
> Fort Smith, Arkansas
> or by e-mail: jguerra@uafortsmith.edu

Announcing the 1st Annual OK – AR *Undergraduate Math Competition* Sponsored by the Oklahoma-Arkansas Section of MAA

On Thursday, March 26, 2009, the Oklahoma – Arkansas Section of the MAA is sponsoring the 1st Annual OK-AR Undergraduate Math Competition. The Competition will consist of two contests:

1. Team Competition – Teams of 2 or 3 undergraduate students will compete in rounds of **Math Jeopardy**. Schools may enter more than one team. There is an entry fee of $10 for each team. A Trophy will be awarded to winning team.

2. Individual Competition – Students will compete as individuals in an **Integration Bee**. There is no entry fee for this competition. Prizes will be awarded to the winners.

The competition will begin at 6 p.m. with the team competition followed by the individual competition. Pizza and drinks will be provided to all student participants.

Registration for both team and individual competitions is available on the section website http://sections.maa.org/okar/.

Local Area Hotels – Weatherford, Oklahoma

SINCE WEATHERFORD IS A SMALL TOWN IN A RURAL AREA, PLEASE RESERVE YOUR ROOMS AS EARLY AS POSSIBLE TO ENSURE BEING ABLE TO STAY IN WEATHERFORD. THE LOCAL HOTELS HAVE BLOCKS OF ROOMS SET ASIDE FOR THE MEETING, BUT TRY TO RESERVE YOUR ROOM BY MARCH 7, IF AT ALL POSSIBLE. BE SURE YOU MENTION THAT YOU WILL BE ATTENDING THE MAA CONFERENCE AT SWOSU AND REQUEST THE GROUP RATE.

Hotels in Weatherford, OK

1. Best Western Mark Motor Hotel; Weatherford, OK
Amenities: Free Continental Breakfast, Pool, High Speed Internet
Conference Rate: $70.00 Single/ $89.99 Double
Phone: 580-772-3325 Toll Free: 800.598.3089
525 E. Main Street, Weatherford, OK

2. Comfort Inn; Weatherford, OK
Amenities: High Speed and Wireless Internet, Deluxe Continental Breakfast, Heated Indoor Pool, and Exercise Room
Conference Rate: $75.00 Single/$80.00 Double
Phone: 580-772-9100
1311 E. Main Street, Weatherford, OK

3. Holiday Inn; Weatherford, OK
Amenities: Hot Continental Breakfast
Conference Rate: $81.00 Single/ $81.00 Double
Toll Free: 877.774.4480; Phone: 580-774-0400
3825 East Main Street, Weatherford, OK

Hotels in Clinton, OK (15 miles west of Weatherford)

1. Hampton Inn; Clinton, OK
Amenities: Free Complimentary Hot Breakfast, Fitness Room, Indoor Pool, Internet Access
Conference Rate: $99.00 single or double (King or 2 Queens)
Phone: 580-323-4267

2. Days Inn; Clinton, OK
Amenities: Free High Speed Internet, Gym/Fitness Center, Outdoor Pool
Conference Rate: $60.00 Single or Double (King or 2 Queens)
Phone: 580-323-5550

<u>**Hotels in El Reno, OK (30 miles east of Weatherford**)</u>

1. Best Western Hensley's; El Reno, OK
Amenities: Free Complimentary Breakfast, Pool,
Pets allowed, Restaurant
Rate: $65 King or 2 Queens; $5 per additional person
Phone: 405-262-6490

<u>**Hotels in Hinton, OK (25 miles east of Weatherford)**</u>

1. Microtel Inn & Suites; Hinton, OK
Amenities: Free Complimentary Breakfast, Indoor Pool, Pets allowed.
Restaurant close by
Conference Rate: 1 Queen $59.99 1-2 people; 2 Queen $64.99 1-5 people
Phone: 405-542-6011

Get up-to-date information from the Section website:
http://sections.maa.org/okar/

Local Area Restaurants

Arby's 905 E Main St Weatherford, OK 73096-5641 **(580) 772-5756**	**Bar-B-Que Shed** 1230 Weatherford Shpg Ctr Weatherford, OK 73096 **(580) 772-6383**
Benchwarmer Brown's (Sports Restaurant/Bar) 108 E Main St Weatherford, OK 73096 **(580) 772-7682**	**Carl's Jr.** Main St Weatherford, OK 73096
Casa Soto (Mexican) 115 SW Main St Weatherford, OK 73096 **(580) 772-0232**	**China King Buffet** 310 N Washington St Weatherford, OK 73096 **(580) 772-8881**
Downtown Diner 123 W Main St Weatherford, OK 73096 **(580) 774-1234**	**Heapin Helpins Bar-B-Q** 302 E Main St Weatherford, OK 73096 **(580) 772-7427**

Jerry's Diner 1000 E Main St Weatherford, OK 73096 **(580) 772-3707**	**Kentucky Fried Chicken**/Taco Bell 206 N Washington St Weatherford, OK 73096 **(580) 772-5323**
Lucille's Roadhouse (Diner/Steakhouse) I 40 & Airport Rd Exit 84 Weatherford, OK 73096-0685 **(580) 772-8808**	**Mark Restaurant** (Diner) 601 E Main St Weatherford, OK 73096 **(580) 772-6092**
New Young China Restaurant 205 W Main St Weatherford, OK 73096 **(580) 774-2845**	**McDonald's Of Weatherford** 105 N Washington St Weatherford, OK 73096 **(580) 774-1000**
Nita's Ice House (Sports Restaurant/Bar) 1317 E Main St Weatherford, OK 73096 **(580) 772-7111**	**Pedro's** (Mexican) 1094 W Eads Ave Weatherford, OK 73096 **(580) 774-0004**
Mazzio's Pizza 120 N Washington St Weatherford, OK 73096 **(580) 772-0000**	**Pizza Hut** 309 N Washington St Weatherford, OK 73096 **(580) 772-2650**
Quiznos 701 E Main St Weatherford, OK 73096 **(580) 772-7849**	**Sonic Drive-In** 208 E Main St Weatherford, OK 73096 **(580) 772-5424**
SUBWAY 902 E Main St Weatherford, OK 73096 **(580) 772-0125**	**SUBWAY** 310 N Washington St Ste 1201 Weatherford, OK 73096 **(580) 772-0600**
Taco Mayo 500 E Main St Weatherford, OK 73096 **(580) 774-1224**	**T-Bone Steak House** 1805 E Main St Weatherford, OK 73096 **(580) 772-6329**
The Cup (Coffee & Sandwich Shop) 103 W Main St Weatherford, OK 73096 **(580) 774-2644**	**Vinicio's** (Mexican) 1231 E Main St Weatherford, OK 73096 **(580) 772-3696**
White Dog Hill Restaurant 4101 N.E. Service Rd. Clinton, OK **(580) 323-0059**	

Get up-to-date information from the Section website:

http://sections.maa.org/okar/

Map of the City

Source: http://maps.google.com/

Streets around Campus

Source: http://maps.google.com/

Campus Map

Legend of Facilities

Legend of Facilities

1. Administration Building (ADM)
2. Al Harris Library (LIB)
3. Art Building (ART)
4. Campbell Building (CAM)
5. Science Building (SCI)
6. Theater Scene Shop
7. Chemistry Pharmacy Physics Building (CPP)
8. Dr. Joe Anna Hibler Education Center (EDU)
9. Classroom Annex (CAX)
10. Industrial & Engineering Technology Building (TBB/TSB)
11. Building Apartments
12. Memorial Student Union Center/Cafeteria/"U" Grill (STU)
13. Milam Stadium
14. Wellness Center/Student Health Services/ Student Counseling Services (WEL)

15. Gen. Thomas P. Stafford Center (STF)
16. Neff Hall (NEF)
17. Burton House (BUR)
18. Oklahoma Hall/Music Annex (OKL)
19. Parker Hall (PAR)
20. Pharmacy II Annex (PAX)
21. HPE Building/Rankin Williams Fieldhouse/Pool (HPE)
22. Rogers and Jefferson Halls (R&J)
23. Fine Arts Center (FAC)
24. Stewart Hall (STE)
25. Tennis Courts
26. "Y" Chapel Museum
27. Psychology Building (PSY)
28. Biology Laboratories
29. Intramural Field

30. Center for Economic & Business Development (CEO)
31. Physical Plant (PHY)
32. Conference Center (CFC)
33. School of Nursing (NUR)
34. Campus Police (DPS)
35. Residence Life Office
36. Assessment Center (ASM)
37. University Press
38. Ed & Winnie Ota Berrong Music Hall (MUH)
39. Greenhouse 1
40. Outdoor Volleyball Courts
41. Greenhouse II
42. Student Government Association (SGA)
43. Outdoor Basketball Courts

44. Athletics Administration Building (ATH)
45. Small Gym
46. Practice Field I
47. Commuter Lounge
48. Alumni Centennial Clock Tower Plaza
49. Fitness Center (FIT)
50. Athletic Complex
    Baseball/Intramural/Soccer/Softball
51. Practice Field II
52. Bulldog Plaza Bookstore/University Market
53. Portable Classrooms
54. Hilltop Theatre (HTT)

Get up-to-date information from the Section website:
http://sections.maa.org/okar/

Michael Lloyd
Box 7782
Henderson State University
Arkadelphia, AR 71999