The Mathematical Association of America is a large organization dedicated to education and research in mathematics. The MAA focuses on mathematics which is accessible to undergraduate students, and its membership includes teachers at both the university and high school levels, as well as students and people in government and industry. The MAA holds many meetings across the U.S. every year, and this past October, the UND Mathematics Department hosted the fall meeting of the North Central Section of the MAA.

The meeting began in the evening on Friday, October 23, 2009, and concluded the next day in the afternoon. Participants came from such places as Bemidji State University, University of Minnesota Morris, Augsburg College, Gustavus Adolphus College, and College of St. Benedict/St. John’s University. One invited speaker came from Harvey Mudd College, in Claremont, California. The main activity of the meeting was its mathematical talks. Many faculty members gave talks on a variety of topics related to their teaching or to mathematical problems that their students were working on. Five undergraduate students also presented talks. Among these five were Kirsten Hogenson and Danica Belanus, of UND. Some of the students discussed formal summer research projects they had conducted under faculty guidance.

Several people from the UND Mathematics Department helped with the meeting. Doctors Mohammad Khasvanin, Tim Prescott, and Ryan Zerr coordinated the overall effort. Doctors Richard Millspaugh and Joel liams, as well as students Danica Belanus, Dewitt Johnson, Joseph Kucera, and Ryan Wenaas also helped out. Thanks to all of you for making the meeting a success!

Visitor Presents Talk

Dr. Justin R. Peters visited the Mathematics Department on September 30, 2009, and presented the talk “Norms on Euclidean Space: A Summer Undergraduate Research Experience.” Dr. Peters’s talk dealt with research topics that undergraduate students had investigated during a special organized summer research program. During his visit, Peters also discussed other research projects with Dr. Ryan Zerr, of the UND Mathematics Department. Dr. Peters is currently affiliated with the Mathematics Department at Iowa State University in Ames, Iowa. He served as the Ph.D. thesis adviser to Zerr during his Ph.D. studies at Iowa State a few years ago.

Master’s Degree Awarded

T. J. Chapman received his M.S. degree from the UND Mathematics Department this past summer. The title of his independent study report was “An Analysis of Time Series Modeling,” and Dr. Gerri Dunnigan served as his adviser. On May 28, 2009, he presented a talk on his independent study work. T. J. is continuing his graduate studies: He is currently pursuing a Master of Music degree in bass trombone performance right here at UND.

New GTA’s Join the Mathematics Department

Several new Graduate Teaching Assistants (GTA’s) have begun work here in the Mathematics Department this semester.

Semhar Michael is from Eritrea, in northeast Africa. She earned an undergraduate degree in Mathematics from the University of Asmara, in Eritrea, where she also minored in Computer Science. In addition to mathematics, Semhar is interested in classic books, swimming, and programming.

Ryan Wenaas is from Carrington, North Dakota, and he received his bachelor’s degree from UND. As an undergraduate, he completed majors in Mathematics and in Secondary Education. He also minored in Computer Science. Outside of mathematics, Ryan is a member of the UND lacrosse team and the UND Ultimate Frisbee Team. He is also in his tenth season of organized bowling!
Melissa Duchsherer and Aaron Novotny have also joined the Mathematics Department as GTA’s. Both are pursuing master’s degrees in Mathematics.

Where They Are and What They Are Up To

David Harpster (MS, 1994) holds an Ed.D. degree from Montana State University and now serves in the Mathematics Department at Jamestown College, in Jamestown, North Dakota. He has switched fields and has moved from mathematics education into ordinary mathematics. He says that “what I like most about my job is that as I teach, I continue to learn.”

Al Olson (BA, 1961; MA, 1965) stopped by the Mathematics Department earlier this year to donate some books. He also had a nice visit with the Math Log editor. Al served in the U.S. army from 1961 to 1963. He worked at mathematics-related jobs until approximately 1982, when he became more involved with computer-related work. Al retired in 2004 and now lives in Pagosa Springs, Colorado. Thank you for the books!

Justin Schommer (MS, 2002) teaches mathematics at Red River High School here in Grand Forks. This year he is teaching Algebra I and Precalculus. He has also previously taught Algebra II. In addition to teaching classes, Justin serves as the head girls’ basketball coach at Red River. In the fall, he announces home football games, and he runs the Lynx timing system during the spring track season.

Justin and his wife Ann have two daughters: Maggie (age two) and Ally (six months). In the summer, the family often travels to South Carolina, where they spend a week or so vacationing at the beach on Pawley’s Island. Justin also enjoys Philadelphia Phillies baseball. Last year he attended a Phillies game in Washington, DC, and while in DC, the family visited several museums, as well as the U.S. Capitol. In fact, Justin was able to visit with U.S. Senator Kent Conrad, of North Dakota!

Jeff Skibicki (MS, 1992) has worked at Bismarck State College in Bismarck, North Dakota, since fall 1997, and he enjoys his work there. He is an Associate Professor of Mathematics, and he teaches a wide variety of courses. He especially enjoys teaching calculus and linear algebra. Jeff’s wife Kate is a sixth-grade school teacher in Bismarck. Jeff and Kate have two children, Abby and Grant, ages ten and nine, who are very active in all sorts of extracurricular activities. When Jeff is not busy with his job or with the children, he enjoys following the Denver Broncos football team!

Jason Smith (MS, 2006) is currently working toward a Ph.D. in Mathematics at Iowa State University in Ames, Iowa. He has passed the algebra qualifying exam, and he is now spending a lot of time preparing for the analysis exam. Jason is hoping to do research in graph theory and applications of graph theory related to computer science. Jason holds a teaching assistantship at Iowa State. His teaching job is to coordinate two mathematics computer labs. He performs minor computer maintenance and handles class reservations for the labs. Outside of mathematics, Jason enjoys playing volleyball, and he also likes to travel. Jason has been to all seven continents, including Antarctica! He would like to do more traveling within the U.S. Jason stays in contact with his former classmates from UND. He recently attended the wedding of Katrina Nagel (MS, 2007), and this gave him a chance to see two more alumni of the UND Mathematics Department: Jeanna Schultz (MS, 2007) and Haley Skipper (MS, 2007). Good luck with your exams and your research!

Let us know what you are up to! The Math Log welcomes news from alumni of our undergraduate and graduate degree programs!

Wedding Anniversaries

UND Mathematics Professor Emeritus Dr. Glenn Prigge and his wife Lila celebrated their fiftieth wedding anniversary this past summer. Mathematics Professor Emeritus Dr. Tom Robinson and his wife Sandra have also celebrated their fiftieth wedding anniversary this year. Congratulations to both couples!

Promotions

Dr. Shuzo Takahashi and Dr. Ryan Zerr have been promoted to the rank of Associate Professor as of this semester. The University has granted tenure to both Takahashi and Zerr. Zerr came to UND in 2003, and Takahashi in 2004. Takahashi and Zerr have done very well here, and the Math Log congratulates both of them!

Faculty Footnotes

Candyce Hecker and Dr. Richard Millspaugh have published the article “Limit sets and closed sets in separable metric spaces” in the Missouri Journal of Mathematics. Millspaugh is the Chair of the UND Mathematics Department, and Hecker is a recent student. Hecker received her M.S. degree in Mathematics from UND in 2008.
Dr. Michael Minnotte and coauthors Krista Lynn Minnotte and Alison Cook have published the article “Occupation and Industry Sex Segregation, Gender, and Workplace Support: The Use of Flexible Scheduling Policies” in *Journal of Family Issues*.

Dr. Shuzo Takahashi has published the article “Maps on groups of connected components induced from parametrizations of elliptic curves by Shimura curves” in *JP Journal of Algebra, Number Theory and Applications*.

**MAA Book Publisher Discusses Books, Mathematicians, and Teaching**

The Mathematical Association of America, or MAA, is one of the main professional organizations in mathematics in the U.S. Every year, the MAA holds mathematical meetings all across the nation. In fact, as you probably know from reading this issue of the *Math Log*, the Fall 2009 meeting of the North Central Section of the MAA was held right here at UND! The sectional meetings of the MAA provide mathematics educators and students with a forum for presenting and listening to talks on a wide variety of mathematical subjects. But the MAA’s activities include much more than meetings. One of the organization’s main activities is the publication of books and periodicals. The MAA’s current Books Editorial Director is Donald J. Albers. Don graduated from UND in 1963 with a bachelor’s degree from the Mathematics Department. At the suggestion of one of the *Math Log*’s readers, I gave Don a call. We spent a couple of hours discussing Don’s background and his experiences with book publishing.

As a young child, Don lived on a farm in Minnesota, but the Alberses later moved to Wahpeton, North Dakota, where they lived in town. Don came to UND in 1960 and has especially fond memories of the mathematics classes he took from Ruth MacKichan, Lyle Mauland, and Milton Winger. Don also took courses in physics, philosophy, psychology, and education, and in the summer of 1963, he was a student teacher at Central High School here in Grand Forks.

In the fall of 1963, after graduation from UND, Don enrolled at Andrews University, which is located in southwestern Michigan, not far from Chicago, Illinois. During the summers at Andrews, Don gained experience as an assistant for various eight-week summer “institutes” sponsored by the U.S. National Science Foundation (NSF). Teachers from all over the U.S. came to these institutes to take further courses in mathematics. Don’s job was to tutor students and do the paper grading, but he also attended the classes themselves, thereby gaining knowledge in mathematical areas that were new to him. Don spent the 1964-65 academic year teaching at Benilde High School, a private school in St. Louis Park, Minnesota. In 1967, he received his master’s degree from Andrews University. Don’s mathematical specialty area was topology. He spent the following academic year teaching at Lea College, which was located in Albert Lea, Minnesota. Lea College has since closed.

**California and George Polya**

In 1968, Don attended the Joint AMS/MAA Mathematics Meetings in San Francisco. (The American Mathematical Society, or AMS, is another important professional organization in mathematics. The AMS, in contrast to the MAA, has traditionally focused on advanced mathematical research.) The joint meetings gave Don, among other things, the chance to learn about academic job openings in mathematics, and Don says that there were many such openings at the time! He received job offers from four different schools, and in the end, he accepted an offer from Menlo College, in Atherton, California, which is located in the San Francisco Bay area. The mild winters of California were a key factor in Don’s decision to move. Ever since childhood, he had wanted to avoid the cold winters and humid summers of the Upper Midwest and move to a milder climate!

It was at Menlo College that Don became more deeply involved with the MAA, and he credits this deeper involvement in large part to his friendship with George Polya. Polya was a famous mathematician at Stanford University. Perhaps you have heard of Polya’s book...
How to Solve It, which outlines techniques for solving difficult mathematical problems at all levels. Don told an interesting story about how he came to know Pólya. Don had always enjoyed reading, and one day, while vacationing in the Sierra Mountains of California with his wife Geri, Don happened to bring along some of Pólya’s books, which he had started reading while still in high school. He found Pólya’s writing to be quite remarkable. In fact, Don says, he was “bowled over” by Pólya. He knew that Pólya was at Stanford, which was very close to Menlo College, and he thought that perhaps Pólya would come to Menlo to give a talk. Don was chair of the Menlo College Mathematics Department, and he soon invited Pólya. Pólya accepted and went on to give a full series of lectures at Menlo College.

Pólya was active in the MAA, and Don’s contact with Pólya led him to become more involved with the MAA himself. In 1974, Don became the Chair of the Northern California Section of the MAA. In 1979, he became the editor of one of the MAA’s journals: The Two-Year College Mathematics Journal, which later became The College Mathematics Journal. This journal is aimed at teachers of undergraduate mathematics.

Don had some new ideas for the College Mathematics Journal. He wanted to have more stories with a general human interest, so he began to occasionally run articles in the form of interviews with mathematicians. In fact, the very first issue under Don’s leadership included an interview with George Pólya! After a few years, the journal had published interviews with several mathematicians, and in 1985, Don and his co-editor, G. L. Alexanderson, published these interviews, along with a few additional ones, in a book entitled Mathematical People. In 1990, another book with additional interviews appeared: More Mathematical People, edited by Don, Alexanderson, and Constance Reid. Don says that a third volume in this series will be appearing very soon!

A New Magazine for Students

In 1991, Don moved to MAA headquarters in Washington, DC, and became the MAA’s Director of Publications and Programs. It was at this time that Don had the idea of starting a new publication. He felt that the MAA should establish a mathematics magazine aimed explicitly at undergraduate students, so he founded Math Horizons. This magazine contains technical articles for undergraduate students of mathematics, stimulating problems for readers to tackle, as well as profiles of mathematicians and information on mathematics-related careers.

Establishing a new magazine was not easy. The MAA’s board of governors thought that a magazine for undergraduates was a great idea, but Don had to look elsewhere for start-up funding. He obtained limited support from the NSF and various other organizations, but Math Horizons needed more substantial initial funding. Fortunately, Don happened to be acquainted with William Hewlett, one of the founders of the Hewlett-Packard Company. Hewlett-Packard, as you may know, is currently one of the largest computer manufacturers in the world. The company headquarters are located in Palo Alto, California, not far from Menlo College, and Rosemary Hewlett, wife of Bill Hewlett, was on the board of Menlo College. Don got to know Mrs. Hewlett and her husband at board meetings, which Don attended in his capacity as the Special Assistant to the President of Menlo College. Don approached Mr. Hewlett and explained his plans for Math Horizons. Hewlett directed Don to one of Hewlett-Packard’s charitable foundations, and in the end, the company provided the extra financial support that Math Horizons needed.

Even with the initial start-up funding, however, the establishment of a new magazine was still difficult. Don soon realized that the project needed guidance from a more experienced expert. Once again, it was through personal contacts that Don obtained what he needed. One of Don’s assistants, Carol Baxter, was the daughter of Bob Hood, who had been the editor of Boys’ Life magazine for twenty-five years, and Baxter introduced Don to her father. Don started to meet with Hood every couple of months to discuss Math Horizons. In the course of these discussions, Hood would sometimes criticize Don, but Don feels that this criticism was very helpful.

At first, Don and his helpers had some difficulty marketing the Math Horizons magazine. The MAA would mail bulk quantities of free copies of Math Horizons to mathematics departments across the U.S., but most departments did not know what to do with them. After a couple of months, however, Don contacted the organizers of the MAA sectional meetings across the U.S. and asked them to devote a few minutes at their meetings to a very short talk on Math Horizons and ways to publicize it among their students. Participants at the sectional meetings cooperated very well, Don says, and subscription orders soon began to come in. Math Horizons succeeded, and within a year, it was the MAA’s largest publication!

Recruiting Authors for Books

Besides working on Math Horizons, one of Don’s primary responsibilities at the MAA Washington office has been to direct the book publication program, and in this endeavor, personal contacts have again proved to be very helpful. This is because Don actually recruits book authors! When he sees the need for a particular book, he will first think of a good person to write it. He then approaches the potential author, and tries to
It is thus very important for Don to meet many potential authors, and for many years he has succeeded in doing this by attending all sorts of mathematical meetings and conferences, such as the MAA meetings. Don’s techniques have worked very well! The volume of book publication by the MAA has quadrupled over the past twenty years, and Don has initiated three new book series!

**Current Activities and Concluding Thoughts**

In 2006, Don returned to the San Francisco Bay area in California, where he continues his editorial work with the MAA’s book publication program. He still attends mathematical meetings, and he continues to work with potential book authors. Although Don coordinates the activities of nine book series editors, he has retired from the staff management duties of his job at the MAA’s Washington office. Don is now affiliated with the Mathematics Department at Santa Clara University, in Santa Clara, California, as a Visiting Scholar. At Santa Clara, he enjoys having regular contact with active mathematicians, something that was quite limited during his years in Washington, DC.

Don has been married to his wife Geri since 1968. Don and Geri have a daughter, Lisa, and they have recently become grandparents. Don and Geri have always enjoyed camping and hiking, and from time to time, they vacation in remote areas of the Southwest region of the U.S. Don is particularly impressed by the scenery at Canyonlands National Park in southeastern Utah. He is also interested in astronomy, and he communicates with professional astronomers via e-mail.

I asked Don my usual question: What advice do you have for young people and those of us who are a little farther along in our careers? He answered by stressing the importance of consulting with other people. This was very helpful for him in the establishment of *Math Horizons*. Don noted that there are many very talented people around us, and it does not hurt to talk to them. Many are flattered that someone would come to ask them for advice. “The worst thing that can happen is that the person may say no or suggest charging you $1000 per hour for consultation!” Don also emphasized the importance of working at a job that you enjoy doing. I know Don enjoys working with books, and I wish him the best of luck in this endeavor in the years to come!

**The Pseudo-Sum**

By Larry Peterson

I hope you are all surviving the current swine flu epidemic. A handful of people here in the Mathematics Department have missed a few days work as a result of the flu. But for the most part, we have covered classes for each other, and operations have continued as usual. Several weeks ago UND faculty members received a memo from the Provost, Dr. Paul LeBel, suggesting that we develop policies to handle extended student absences. Among other things, Dr. LeBel suggested that instructors develop ways of making lecture notes available to students who cannot come to class. The Provost also suggested that instructors prepare to work from home in the event that they themselves should fall ill. The memo from Dr. LeBel went on to discuss the remote possibility that the University might have to shut down just before final exam week. In this scenario, it would be very important that students do some type of graded work prior to the final exam! In any
case, as of this writing, the flu epidemic has not seriously disrupted day-to-day operations of the University. Let’s hope it stays that way through the end of final exam week!

The Fighting Sioux

Another issue that has received some attention here at UND over the last few weeks has been the issue of the “Fighting Sioux” nickname and logo. As you probably know, the University of North Dakota athletic teams are known as the “Fighting Sioux.” For the past several years, many people at UND, in North Dakota, and in surrounding regions have asked the University to retire the Fighting Sioux nickname and logo and adopt some other name for the University’s athletic teams. Opponents of the Fighting Sioux nickname often say that the use of the name suggests that Native Americans are violent and warlike people. Proponents of the Sioux nickname and logo, on the other hand, insist that the name does not portray native Americans as violent or warlike and that UND should continue to use the Fighting Sioux name.

Several months ago, the National Collegiate Athletic Association (NCAA) essentially ordered UND to retire the Sioux nickname and logo. If UND did not comply, then UND would not be allowed to compete in certain athletic events. After some negotiations, the NCAA agreed that UND could continue to use the Sioux nickname and logo, provided it received approval from Sioux tribes in North Dakota. Some tribal leaders have still not approved the use of the nickname and logo, however, and it appears that UND will actually retire the nickname soon. UND has a representative governing body, called the University Senate, consisting of elected faculty members, students, and certain ex officio members (such as deans, the UND President, and other administrators). At its meeting on November 5, 2009, the University Senate passed a resolution requesting that the North Dakota State Board of higher education retire the Fighting Sioux nickname and logo. Proponents of the nickname and logo have undertaken further legal action to delay or prevent the retirement of the nickname and logo, but it seems very likely that these actions will fail. Within the next few months, UND may very well have a new nickname!

The Flickertails

I investigated the nickname and logo controversy on the Internet. In fact, I obtained some of above information from the article “North Dakota Fighting Sioux” in the on-line encyclopedia Wikipedia:

http://en.wikipedia.org

It seems that the UND nickname was originally the “Flickertails.” (A flickertail is a certain type of squirrel.) In 1930, UND changed the team name to the “Sioux.” Later on, the name became the “Fighting Sioux.” I would think that it would be a great idea to change the name back to the “Flickertails!” The name has historical significance, and it would be far less controversial. And although UND has previously used it, the name “Flickertails” would still seem very original.

I realize that there are rational (and also irrational) arguments on both sides of the nickname issue. People on both sides feel very strongly. But in the long run, nearly everyone will be better off if we change the name of our teams! Anyway, watch for more news, either from the Math Log or from other UND publications. A new era may be about to dawn! And if you have a suggestion for a new nickname, why not send it to the UND Alumni Association or to University Relations? In any case, whether the “Sioux” name survives or goes away, UND (and hopefully the Math Log as well) will likely be around for years to come! As UND President Robert O. Kelley says in the Winter 2009 issue of the Alumni Review, “We will continue to focus on the University’s core mission of teaching and learning, scholarship and service.” I agree with President Kelley!
THANK YOU !!

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If you would like to make a monetary contribution to UND, to the UND Mathematics Department, or to one of our scholarships, please make checks payable to the “UND Alumni Association” or to the “UND Foundation.”

*Your generosity is gratefully acknowledged and sincerely appreciated!*