

Nancy Vojtash Moore represents alumni



Math alumna Nancy Vojtash Moore, a 1999 graduate in the math teaching option, believes in making connections, and she has maintained

these connections to IPFW both before and after graduation.

Vojtash Moore grew up in Pittsburgh, where she attended South Side High School. After living in San Diego and Lexington, Kentucky, she is back at South Side High School, but this time in Fort Wayne.

Her connections to IPFW remain strong. As an undergraduate, she was a Writing

Center consultant, a Transitional Studies tutor (now CASA), and a teaching assistant with the Summer Bridge Program. Since graduation and her return to the area, she has continued her support, as the coordinator for the Pulin Sampat Memorial Undergraduate Research Award competition.

In addition, she has been an IPFW Alumni Association Board of Directors committee member since 2006, representing the College of Arts and Sciences. Within the math department, she has helped plan several of the math alumni dinners and has contributed to the Pieces-of-Pie campaign.

This summer, Vojtash Moore is teaching math at the Upward Bound Summer Academy. She says she was pleased to reconnect with the Upward Bound Program, as she was an Upward Bound high school student herself more than 30 years ago at Carnegie

Mellon University. She is grateful for the difference it made in her education.

Vojtash Moore began her teaching career at Summit Middle School in Fort Wayne, where she taught pre-algebra, geometry, and algebra II. After three years, she moved to South Side High School and has been happily teaching there since. She teaches integrated mathematics, discrete mathematics, and pre-calculus, though she has also taught biology and earth and space science.

In 2004, she was appointed as International Baccalaureate coordinator at South Side High School's International Baccalaureate Diploma Programme, an internationally recognized and rigorous pre-university course of study. This summer her ties to IPFW expanded, as she became a graduate student in IPFW's Master's in Educational Leadership program.

Alumni, Guests Enjoy Annual Alumni Dinner

Forty-four alumni, faculty, and guests attended the sixth annual alumni dinner March 1. The evening provided ample opportunity to renew acquaintances with former classmates and faculty, and to talk about what has been happening since their graduation. Mathematics and elections was the evening's theme. Professor Matt Walsh led an engaging discussion on politics and the mathematics of apportionment. Catablu once again catered the delicious dinner. It was a thoroughly enjoyable evening! To see additional pictures from the event, go to www.ipfw.edu/math/alumni.



Alumni Dinner 2009

The alumni dinner for 2009 will be Saturday, March 21.

The theme will be sports and the mathematical sciences. We'd enjoy seeing you there! If you were an IPFW student-athlete, or know someone who was, send an e-mail message to townsend@ipfw.edu with the details.

Chair's Perch

Just as the legendary phoenix rose out of the ashes, the master's degree in mathematics education (MAT) has been reborn in an updated form.

This degree was very popular in the 1980s due to support from federal agencies, but once the support dried up, the degree essentially disappeared. In recent years, we in the math department noticed a strong increase in interest for the MAT among area teachers. We decided to offer the degree again in a form that recognizes the current needs of area teachers.

The mandatory bureaucratic process has been completed, and so in January we admitted our first class of students. Further information about the MAT may be found on page 3, or by contacting the math department at 260-481-6821 or 481-6225.

In other news, Erwin Mina-Diaz has accepted a tenure-track assistant



professor position at the University of Mississippi. Mina-Diaz was a postdoctoral research assistant in the department for the last

two years, teaching classes and also conducting research with several faculty members. He will be greatly missed, and we wish him every success in his new position.

Also of merit, Schrey Professor Lowell Beineke has added to his already extensive list of honors by being selected for Purdue University's "Book of Great Teachers." He is the first faculty member from IPFW to be selected for

the permanent display. Lowell was officially inducted during an August 28 ceremony on the West Lafayette campus. Congratulations to Lowell for another highlight in his distinguished career.

And as always, the department continues to be grateful to its alumni for their moral and financial support. Please know that we are always striving to be a department of which you can be very proud.

Another Honor for Lowell Beineke



Lowell Beineke has received many honors during his career at IPFW: first named professor—the Jack W. Schrey

Professor of Mathematics, IPFW Researcher of the Year, Friends of the University Outstanding Teacher, among others. Now he has been named to Purdue University's "Book of Great Teachers."

The "Book of Great Teachers," a permanent wall display in the west foyer of Purdue Memorial Union, is an extension of Academy Park. It was dedicated April 23, 1999. The book bears the names of faculty members, past and present, who have devoted their lives to excellence in teaching and scholarship. They were chosen by their students and their peers as Purdue's finest educators. The nomination process for inclusion in this book is repeated every five years.

A reception was conducted at Purdue Memorial Union in August to celebrate the addition of new names to the "Book."

Matt Walsh

Matt Walsh celebrated a significant career milestone this summer. As of July 1, he was tenured and promoted as associate professor of mathematics.

Walsh has excelled in the three areas expected of a university professor: research, teaching, and service. He has a variety of research interests in graph theory and other aspects of discrete mathematics; he has 15 publications in scholarly journals, and he was awarded the Kirkman Medal for young combinatorial researchers for 2005.

He has distinguished himself as a teacher in the classroom, and outside the classroom. He has given well-received talks at PI Math Club meetings, the Pi Mu Epsilon initiation ceremony, and the alumni dinner. He has served on numerous committees and has co-edited this newsletter for the past five years.

Walsh received an Honours Bachelor of Mathematics degree from the University of Waterloo in 1999 and a Ph.D. in discrete math from Auburn University in 2002, arriving at IPFW that fall. We are fortunate to have a faculty member of his caliber.



Department revives Master of Arts in Teaching

In January 2009, the Department of Mathematical Sciences admitted its first students into the revised Master of Arts in Teaching (MAT) program. This is a graduate-level degree aimed at secondary school mathematics teachers. Applicants must have two years of teaching experience in order to qualify for the program.

The program is cohort-based; the students admitted in January will be taking the same classes at the same time for the two-year sequence. During the school year, the course offerings are scheduled for the evenings, allowing working teachers to pursue the degree. In the summers, MAT students will work with students from area high schools in a workshop setting.

The MAT degree, as previously offered, was discontinued some years ago. The new version features a stronger pedagogical component, more closely integrated with the mathematical course content. Additionally, the selection of math content courses has been made to more closely align with the material in the high school math curriculum.

For more information about the MAT program, contact Professors Jim Hersberger (hersberg@ipfw.edu) or Sue Mau (maus@ipfw.edu).

Department Hosts Two Distinguished Lecturers

During the 2007–08 academic year, the department hosted two mathematicians who were selected to give talks by the College of Arts and Sciences and by IPFW's chapter of Sigma Xi.

In October, Daniel Rockmore from Dartmouth College gave the College of Arts and Sciences Distinguished Lecture on "Stalking the Riemann Hypothesis." He authored a book with the same title in 2006. He also introduced the video presentation *The Math Life*, which he co-produced, at a PI Math Club meeting.



During spring semester, Edward B. Saff from Vanderbilt University gave the Sigma Xi Distinguished

Lecture, "The Poppy-Seed Bagel Theorem: An easily digestible result on minimum energy points." Before continuing his career at Vanderbilt, he was at the University of South Florida, where, on an interesting note, he was the thesis advisor for current IPFW Professor Peter Dragnev.

From left: Chair and Professor David Legg, Distinguished lecturer Daniel Rockmore, and Arts and Sciences Dean Mark Lipman

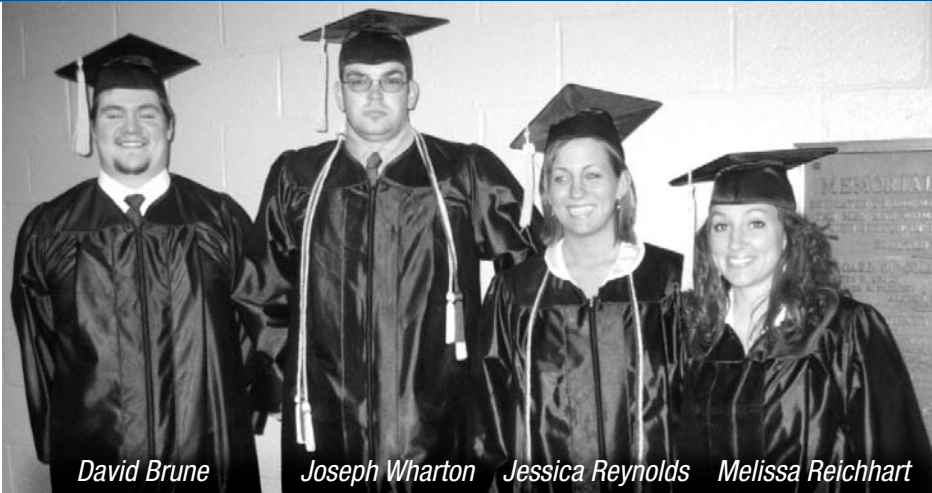


In Memoriam

Life is precious and fleeting, and in the case of math alumnus Will Robey, it was all too brief. Robey, 31, died June 28. He received a bachelor's degree from IPFW in 2005, and a Master of Science in Applied Mathematics/Operations Research in 2007. He had a very promising career at ITT and had taught part time for the math department since his graduation. Robey was a bright and energetic student, and a committed teacher. He will be missed by all who knew him at IPFW.

Alumni who attended IPFW in the 1960s may remember former department faculty member Frank Gucker. He died recently at 81. Gucker was one of the first full-time faculty members to teach computer science courses for the department.





David Brune

Joseph Wharton

Jessica Reynolds

Melissa Reichhart

New alumni added

At Commencement 2008, 17 degrees and 1 certificate were awarded to students in the department. Andrew Masters received a master's degree. Richard Lucas received a graduate Certificate in Applied Statistics. Bachelor degrees were awarded to Samson Amede, Mark Bly, Brandon Boling, David Brune, Elizabeth Curtis, Hap Fiantd, Kerry Haenftling, Aaron Herndon, Michael Menser, John Price, Melissa Reichhart, Jessica Reynolds, Michael Ridenour, Nathaniel Snyder, Joseph Suelzer, and Joseph Wharton. For Commencement pictures, visit www.ipfw.edu/math/

Alumni Updates

Elizabeth Curtis B.S. 2008

Beth will be teaching algebra, geometry, and algebra II at Lincolnview High School near Van Wert, Ohio.

Carrie Barchak B.S. 2007

Carrie got a job working in Southfield, Michigan for a pension consulting company. She has already passed the Society of Actuaries examinations P, FM, and MFE.

Kevin Chlebig, B.S. 2003, MS 2006

In August Kevin started a Master of Public Policy degree program in the School of Public Policy at Pepperdine University.

Joni L. Smith Grad. Cert. 2003, M.S. 2006

Joni lives on fifteen acres in Whitley County. She has two wonderful children, Tara (age 13) and Nathan (age 10) and has been happily married to David for over 19 years. Her hobbies include reading, horseback riding, watching her kids participate in activities, doing things with her family and enjoying nature. The Smiths have a cabin on a lake in the Upper Peninsula of Michigan where Joni loves to spend long weekends and a lot of her summer. Every summer she has the opportunity to go to the lakes in the Upper Peninsula and capture baby loons to tag for them for loon research. It is and has been an awesome experience!

As a teacher, Joni brings a unique perspective to the field of education since this is actually her second career. Using her Bachelors in Business Administration and Marketing, she worked in the manufacturing industry doing product

research and running an in-house agency for 10 years. She learned a great deal about managing and multi-tasking. Today, as a teacher, her tasks are very similar to those in the manufacturing industry, except with a lot more stress.

Since earning her Master's Degree, she has become a department head at Northrop High School. She was a major contributor to the implementation of the Freshman Academy at FWCS and is working to get dual credit for Northrop's upper level students.

Erin Eastgate B.S. 2004

Erin is teaching at Whitko Middle School. This is her first year there. Her son, Cody, just turned two years old, so he keeps Erin and her husband busy. They moved this summer to a mini farm, so they always have plenty to keep them busy. In the summers, Erin works at a greenhouse that is owned by a friend she grew up with, so she enjoys her work all year long. So much for those summers off she looked forward to when in college! For spring break, they are going on a cruise for the first time. They are really looking forward to a relaxing vacation in the Bahamas.

Samantha McGlennen B.S. 2003

This is Samantha's 5th year teaching at Summit Middle School in Southwest Allen County Schools and her 4th year as Math Department Coordinator. She is currently on maternity leave, cherishing the birth of her daughter, Rebekah Susan McGlennen, born January 13th. She and her husband, Steve, now have three wonderful children, Josh, age 15, Rachel, age 10, and little Rebekah.



Deborah Medsker B.S. 2003

This is Deb's 5th year at Elmhurst High School. She has become a homeowner! Since owning her own home, she hasn't had time to do ANYTHING else! The home needed (and still needs) a tremendous amount of TLC. Mathematics sure has come in handy in the process.

Nathan Parker B.S. 2003

Not much has changed for Nathan since his graduation in 2003. He is still working at Verizon Communications as a Network Design Engineer and is still architecting southern Indiana's network.

Clay Hicks M.S. 1999

For the past six years, Clay has been a lecturer in the math department at IUPUI. He normally teaches courses in Intermediate Algebra, Business Calculus, and Finite Mathematics. In addition to teaching, he is also the course coordinator for Math 110 (Intermediate Algebra).

Clay and his wife Jeni recently moved into a new, much larger home in Greenfield. They have been married for three, going on four years. They have two beautiful daughters, Sasha (almost 3 years old) and Sonia (15 months).

Jill Bollenbacher B.S. 1993

Jill has been teaching at Bluffton High School for nine years. She completed her Master's Degree in Education in 2003.

Marek Dragan B.S. 1992

This fall Marek started a Masters Program in Financial Mathematics through the University of Chicago. He will attend classes in Singapore where he and his wife are currently living and working.

Alumni Speak at "Careers" Dinner

The department sponsored its second annual "Careers in Mathematical Sciences" dinner for all undergraduate and graduate math majors on November 8, 2007. Four alumni shared how they used their degrees to build careers that are exciting and rewarding.

Presenters included Lisa Ferguson-Sells, B.S. '96, who works as a pharmacokineticist at Eli Lilly; Nate Parker, B.S. '03, who works at Verizon as a telecommunications network designer; David Ramthum, B.S. '07, who works as an actuary at Lincoln Financial Group; and Will Robey, B.S. '05; M.S. '07, who worked at ITT. The evening was considered a great success by those math majors who attended and by the alumni who presented. We will have another careers dinner in fall 2008. If you would be interested in speaking to our current majors about how you used your mathematical sciences degree in your career, send an e-mail message to townsend@ipfw.edu.



Alumni from all decades give to Pieces-of-Ple V



Math alumni showed their generosity again in support of the Pieces-of-Ple campaign, which raised

more money than ever before for the Alumni Scholarship, the Beineke Scholarship, the Math Discretionary Fund, and the IPFW Annual Fund. Alumni from all decades, since IPFW was founded in 1964, contributed. Congratulations to the class of 2003 which once again contributed the most money. The highest percentage of contributors came from the class of 1966, which has one member, Barbara J. Bulmahn, who contributed.

Contributors were Michael Barnett (1980), Adam Barrone (2000), Larry Bieberich (1970), Joseph Bittner (2000), Barbara Bulmahn (1966), Dan Hasch (1972), Michael Johnson (1977), Steve Johnson (1973; 1985), Barbara Keller (1968; 1971), Sabrina Keller (1986), Carmen Kmety-Stevenson (1994), Peggy Kuiper (1992), Theresa Larson (1973), Traysa Lee (1996), Christian MacLeod (2003), Kevin McCracken (2001), Samantha McGlennen (2003), Fred Mohandespour (1977), Brian Nocholson (2000), Angelia Niederhelman (2007), Matt Parker (1994), Nathan Parker (2003), Dennis Patton (1970), Glenna Raber (1975), Everett Schrug (friend of the department), Renata Shore (1996), Lori Smith (1990), Matt Sutter (1991), Jay Thayer (friend of the department), Drew Tindall (1999), Matt Vachon (1982), Cathleen Westrick (1992), and Christine Zadylak (2003).

(Note: If you contributed and were not mentioned, please accept our apology, and send an e-mail message to townsend@ipfw.edu.)



Students honored at the College of Arts and Sciences Honors Banquet

The College of Arts and Sciences Honors Banquet provides the department with an opportunity to recognize some of its best students. It is always an enjoyable celebration. The students honored at April's banquet were Elizabeth Curtis (Maynard J. Mansfield Award, Outstanding Senior Award, Mathematical Association of America Student Membership); David Brune (Outstanding Senior Award); Michael Menser (Outstanding Senior Award); Timothy D. Carson and Ryan Gerig (Lowell W. Beineke Scholarship); Drew E. Swartz (Engler Scholarship Award and Outstanding Undergraduate Teaching Assistant Award); and Sara McAbee (Outstanding Undergraduate Teaching Assistant Award).



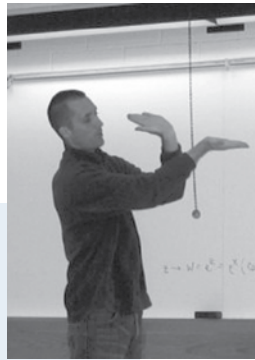
From left: Schrey Professor Lowell Beineke, Timothy Carson, Elizabeth Curtis, Drew Swartz, Dianne Clark, and Chair and Professor David Legg



Left to right: Assistant Professor David Redett (co-advisor), Kurt Keyler, Corbin Yeager, Drew Swartz, Garret Marshall, former Vice Chancellor for Academic Affairs Susan Hannah, senior instructor John LaMaster, Jack Schrey Professor Lowell Beineke (co-advisor), and Associate Professor Matt Walsh (speaker).

PME Induction

IPFW's Indiana Zeta chapter of the national mathematics honor society Pi Mu Epsilon sponsored its annual induction ceremony on April 13. Recently retired Vice Chancellor for Academic Affairs Susan Hannah gave the opening greeting, and Associate Professor Matt Walsh gave a presentation titled "... according to their respective numbers" Students inducted into the chapter were Klint Gerber, Ryan Gerig, Garret Marshall, Tina Moen, Drew Swartz, Sara Tang, Joseph Wharton, and graduate student Timothy Banks. Senior instructor John LaMaster was inducted as a faculty member.



PI Math Club activities

The Pi Math Club had an active year again.

Clockwise from upper left:

Welcome back picnic at Friends Pavilion in the fall.

Michael Bolt for Calvin College talking about "Escher's Print Gallery".

Professor Don Hooley from Bluffton College giving a math club talk.

Nhat Pham, a student in the actuarial science option, giving a student talk.

IPFW Professor Adam Coffman giving a math club talk titled "A Survey of Projective Geometry".

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Keep in Touch!

Please complete and return this form so we can keep our alumni files up to date and relay information about you to other alumni.

Name _____
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Legalized Pi

Everyone (or at least everyone reading this) knows that pi is an irrational number, impossible to write concisely in decimal form.

From time to time, one hears about some state or another—usually a rural state, one with a reputation for backwardness—passing a law to officially define pi as 3. The rationales given for such a proposal range from a desire to simplify calculations to rectifying the law with biblical precepts (1 Kings 7:23 describes a circular altar, 30 cubits in circumference and 10 in diameter).

Robert Heinlein claimed that Tennessee had passed such a law in his novel, *Stranger in a Strange Land*. Ten years ago, a news article claimed that Alabama had done the same thing. (The date on the article was April 1, 1998, which should have been a clue that it was a hoax.) Actually, no state has ever tried to define the value of pi to be 3.

Which isn't to say that no state has tried to define the value of pi. One state has attempted that: Indiana.

Bill #246 of the 1897 sitting of the Indiana General Assembly was proposed by Rep. Taylor I. Record of Posey County, and titled "A Bill for an act introducing a new mathematical truth and offered as a contribution to education to be used only by the State of Indiana free of cost by paying any royalties whatever on the same, provided it is accepted and adopted by the official action of the Legislature of 1897."

The new mathematical truth in question was due to Edwin J. Goodwin, an amateur mathematician (and professional physician), who believed he had determined a method for squaring the circle. Using his methods, the value of pi could be variously determined to be 4, 3.2, or one of several other numbers; additionally, his work showed that the square root of 2 must equal 10/7. (Goodwin, incidentally, was also cited in the bill as

having solved the problems of trisecting the angle and doubling the cube, both of which are impossible under classical constraints. Anyone who claims ruler-and-compass constructions for these problems is almost certainly a crank of some species.)

The new truth, in other words, was nonsense. This didn't bother the Indiana House, however, after being referred to the Committee on Swamp Lands (?), the bill got sent to the Department of Education (where it garnered favorable reviews) and received a unanimous vote of approval in the full House. When it was sent to the Senate, however, it came to the attention of C. A. Waldo, a Purdue University professor, who was present to secure funding for the Indiana Academy of Sciences.

Waldo persuaded a sufficiency of Senate members to postpone consideration of the bill indefinitely, thereby preventing its passage into law.

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