Another academic year has come to an end, punctuated by the rewarding sight of 33 of our students crossing the “finishing line.” You can see a video of Jason Darby, one of our computer science graduates, at the new college web site http://www.marquette.edu/as/about/computervid.html.

Our department has been in the midst of strategic planning. We conducted a full-day retreat in October and a half-day follow-up in January. As any of you who have been involved in such efforts will no doubt testify, the conversation that takes place on the road to “the plan” may have at least as much lasting value as the formal outcome. We certainly relished the opportunity to come together as a group in relaxed circumstances, rather than in a time-constrained meeting. You’ll find a photograph of the faculty at the second retreat, later in this newsletter.

One of the key goals in any strategic plan is to hire well, of course, and I am very pleased to announce to you that two new Assistant Professors in Computer Science will join our department this Fall. Dennis Brylow has a Ph.D. from Purdue University and Praveen Madiraju will shortly graduate with his Ph.D. from Georgia State University. We are very excited at the expertise, energy and enthusiasm they are bringing with them.

Dr. Michael Slattery receives his MAA award

Many of our alumni will recall Dr. Michael Slattery with great appreciation. He has taught mathematics and computer science classes for us for over twenty years, introduced popular courses such as Programming Computer Games, and welcomed many mathematics students to the challenges of problem-solving through the Putnam competition. I am very proud to announce that Dr. Slattery has won the 2005 Distinguished Teaching Award from the Wisconsin Section of the Mathematical Association of America. He was presented with his award on April 15 and will now be a candidate for a national award from this association. Feel free to email your congratulations to him at mikes@mscs.mu.edu!
In other faculty news, **Dr. Chyan-Jue Liu** has retired after more than 25 years of service to the department and the university. He will be dividing his time in retirement between China and the U.S. and intends to remain active in his research on quantum mechanics. Speaking of “25 years” I was recently inducted into the University's Quarter Century Club, which I doubt needs any explanation (hint: I joined MU in 1980). I was joined by **Mrs. Mary Pat Utzerath**, Adjunct Instructor in our department. The picture below shows Mrs. Utzerath being inducted into the club by the President of Marquette University, Robert J. Wild, S.J.

Mrs. Mary Pat Utzerath and Marquette University president Fr. Robert A. Wild at The Quarter Century Club

What are our plans for next year? We are proposing a new major, Mathematics for Elementary School Teachers (MEST). This exciting addition will provide elementary and middle school teachers the expertise to take on leadership roles in mathematics in their schools without requiring them to take the entire high school mathematics degree. It will be one of the first such programs in the country! We hope to begin two new doctoral specializations: in Statistics and in Logic and Foundations, based on the outstanding research abilities of our faculty in each of these areas. At a more nuts-and-bolts level, we are instituting a “brown-bag” lunch for faculty, where we can share ideas on teaching and research among ourselves (and perhaps with others). As part of a University-wide initiative, we will be designing and implementing assessment plans for all our programs. **Drs. Iqbal Ahamed and Craig Struble**, together with faculty from other departments, will continue to study the impact of globalization and outsourcing on the information technology industry, especially, as part of a major grant obtained by the University from the 3M Corporation. Key outcomes will include a re-evaluation of the goals of our computer science major and the integration of the key concepts into all of our computer science courses.

I wish you all a great summer.

Peter R Jones, Chair

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**Research & Publications**

**Ahamed**


**Activities & Awards**

**Ahamed**

Middleware Adaptability for Resource Discovery, Knowledge Usability and Self-healing (MARKS) for Pervasive Computing Environments, Department of Computer Science, University of Wisconsin Milwaukee, December 2004

**Bankston**


Chainability and Hemmingsen's Theorem, invited special session talk at the 1006th Meeting of the American Mathematical Society, Texas Tech University, Lubbock, TX, April 10, 2005.

**Kim Factor**

This March Dr. Factor attended the 36th Southeastern International Conference on Combinatorics, Graph Theory and Computing. While there, she chaired a section and gave a talk: Characterization of Digraphs with Equal Domination Graphs and Underlying Graphs.

At the end of April, Dr. Factor along with two undergraduate students (Jason Darby and Rebecca Kohler) attended the Brualdi-fest Conference on graph theory and linear algebra at University of Wisconsin, Madison.

**Jim Factor**

Defining a Class of Computational Curves based on a Recursive Structure Graph, 36th Southeastern International Conference on Combinatorics, Graph Theory, and Computing - Florida Atlantic University, March 7-11, 2005.

Using Linkages to Trace Bezier Curves: This presentation was given at the invitation of the Super Computing Research Community at Northeastern Illinois University, April 22, 2005.

**Krenz**

Served on BCHI Study Section (Bio Computing and Health Informatics), National Institutes of Health, Washington, D.C., March 10-11, 2005.
The National Science Foundation has awarded a $786,006 research grant to Dr. Jinfa Cai (former MSCS Department member who is now at the University of Delaware) and Dr. Moyer. The project is titled A Longitudinal Investigation of Curricular Effectiveness on Algebra Learning. The initial grant award is for 2 years (March 1, 2005 – February 28, 2007).

This is a continuing grant, however, that has been approved for 5 years, contingent on availability of funds at NSF. The total approved support for all 5 years is $2,406,555.

The grant is a longitudinal project to compare the effects on algebraic learning of using the Connected Mathematics Project (CMP) curriculum to the effects on algebraic learning of using other middle-school mathematics curricula (i.e., non-CMP curricula). The CMP curriculum is a complete, NSF-funded, middle school mathematics program that was developed and revised with support from the National Science Foundation. By making the proposed longitudinal comparisons, the ways and circumstances under which the CMP curriculum can or cannot enhance student learning of algebra will be investigated, as will the characteristics of the curriculum and its implementation that lead to students’ achievement gains.

The research will be conducted in 12 middle schools of the Milwaukee Public Schools (MPS). Six of the MPS schools that have adopted the CMP curriculum will be randomly selected, and six non-CMP schools will be chosen based on comparable ethnicity, family incomes, accessibility of resources, and test results. At least 1200 CMP and 1200 non-CMP students will be selected and followed for four years (grades 6-9).

The undergraduate community in the MSCS department was busy this spring. First and foremost, congratulations to our twelve graduates in mathematics and/or computer science. We wish them all well in their future endeavors and are pleased to hear they are obtaining exceptional job offers! The department was pleased to honor David Stanton and Wendy Wimer at the Honors Convocation in April. David is a double major who received the Outstanding Mathematics/Computer Science award presented by the Math Club and Wendy is a math major who received the Miriam Connellan Math Teaching award.

The department hosted several activities and events designed to foster collegiality amongst the undergraduate students and the faculty. We continue with well-attended pizza lunches each semester that give undergraduate students the opportunity to interact with faculty in a more informal setting. Thanks to Dr. Bansal for organizing a presentation by our alumnus, Matt Wieck of Assurant Health, describing the life of an actuary including educational requirements, companies that are hiring, and career opportunities. This presentation exposed our majors to another potential career path as well as an opportunity to view the benefits of combining mathematics, statistics and computer science. Dr. Ruitenburh facilitated the establishment of a new Math Club. This organization is open to all students and will provide both academic and social activities designed to enhance the undergraduate experience.

Current students and alumni may observe that the third floor of Cudahy has been undergoing a transformation over the past few years designed to foster a sense of community and to enhance the academic experience of our students. There is new furniture designed and optimally located for individual and group study sessions. There are living and breathing people (and plants) in all corners of the department. The laboratories are being equipped with new hardware and software accessible to students in a variety of classes and programs. Help desks have been established for our core courses. Bulletin boards are overflowing with campus activities and with job opportunities. It is an exciting time to be a math or computer science major at MU!

Pi Mu Epsilon

Pi Mu Epsilon members at Initiation Banquet on April 12, 2005

2005 Pi Mu Epsilon New Initiates

Kevin Bailey
Karyn Bratcher
David Cross
Tricia Gilligan
Saad Hasan
Mark Hope
Julie Kusowski
Mohammad Nomani
Kenny Pham
Tim Stolldorf
Molly Barker
Josh Brown
Anisha D’Silva
Morgan Grocholski
Christian Herrild
Laura Jorgensen
Meghan Malone
Eric Nygaard
Michael Richardson
Lindsay Tobin
Alexander Barr
Katie Connolly
Dominique George
William Hall
Adam Hinkle
Jonathan Klinger
Ryan Moore
Scott Pappada
Sarah Schmitt
Jung Wang

Colloquia

January 21: Tammy VanDeGrift, University of Washington, Seattle, WA: Stream Merging for Media-on-Demand Systems.
January 26: Praveen Madiraju, Georgia State University, Atlanta, GA: *Global Semantic Integrity Constraint Checking for a System of Databases.*

February 04: Dennis Brylow, Purdue University, West Lafayette, IN: *Deadline Analysis of Interrupt-Driven Software.*

February 11: Ya (Anne) Zhang, The Pennsylvania State University, University Park, PA: *Exporting Protein-Protein Interactions: Data Mining Approaches.*

February 25: James Factor, Marquette University: *Designing Linkages to Trace Bezier Curves.*

March 11: Brian Raines, Baylor University, Waco, TX: *Continuum Many Tent Map Inverse Limits with Homeomorphic Postcritical Omega-Limit Sets.*


April 29: Rodney Sparapani, Medical College of Wisconsin: *Multiple Treatments, Confounding and the Propensity Score.*

June 9: Taras Banakh, Franko National University of L’viv, Ukraine: *Characterizing Chainable and Tree-Like Continua.*

### Graduations, May 2005

**B.S. in Computer Science**

<table>
<thead>
<tr>
<th>Timothy Chumley</th>
<th>Jason Darby</th>
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<tbody>
<tr>
<td>Darren Franck</td>
<td>Sean Murphy</td>
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<tr>
<td>Callie Reed</td>
<td>David Stanton</td>
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**B.S. in Mathematics**

<table>
<thead>
<tr>
<th>Timothy Chumley</th>
<th>Jason Hood</th>
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<tbody>
<tr>
<td>Ellen Rose</td>
<td>Elizabeth Simpson</td>
</tr>
<tr>
<td>David Stanton</td>
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**B.S. in Teaching Mathematics**

| Kendra Bower | Erin Clancy |

**Master of Science in MSCS**

| Suresh Anamanamuri | Steven Wolfe |

**Master of Science in Bioinformatics**

| Kelli Rose | Neeraja Talla |

**Master of Science in Computing**

<table>
<thead>
<tr>
<th>Nancy Bingen</th>
<th>Janese Christie</th>
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<tr>
<td>Jill Gilbert</td>
<td>Jason Kelley</td>
</tr>
<tr>
<td>Ryan Loucks</td>
<td>Bassam Lubbad</td>
</tr>
<tr>
<td>Todd Miller</td>
<td>Gang Peng</td>
</tr>
<tr>
<td>Donald Shelley, Jr.</td>
<td>Dale Steber</td>
</tr>
<tr>
<td>Dominic Sunderajan</td>
<td>Dinesh Trika</td>
</tr>
<tr>
<td>Ashok Tripathi</td>
<td>Valerie Tsukamoto</td>
</tr>
<tr>
<td>Carl Twining, Jr.</td>
<td>Craig Walker</td>
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### Alumni News

An excerpt from an e-mail that Steven Collins (BS in MATH '90) sent to Dr. Corliss:

I know it has been a long time since you have heard from me. You were my advisor and we worked at CEC together. I still tell stories about reading hundreds of pages of PDP-11 assembler code. I hope you are doing well. I am still with Accenture and passed my 10-year anniversary here last month. I recently transferred out of the consulting arm of the business and I now work internally in our Chicago office. My current role is as the lead of account management (customer service) for all of the infrastructure needs of Accenture’s internal applications. I...
still enjoy my work most days. On the personal side, Jenny and I are expecting our first child in September. We are both thrilled. We still live in Batavia, a far western suburb of Chicago.

An excerpt from an e-mail that David Ebert (BS in TMTH ’93) wrote to Dr. Tonellato:

I read about your move to PointOne Systems in the most recent Marquette University math department newsletter. I’m hoping you remember me – I graduated in 1993 and worked with you on a math modeling project through a Hughes grant. We were working on HLA molecular structure. I still pull out my notes now and then so it stays fresh. I wish I could apply what I now know to my presentation back then.

My wife Jennie and I have two children, Isaac, 4 and Celia, 1. I’m a math teacher at Oregon High School in southern Wisconsin. It’s a school of about 1,100 students. I’m actually taking the current year off to raise my kids and write a statistics textbook. Previously I’ve written articles and product reviews for the National Council of Teachers of Mathematics, and presented at the Wisconsin Math Council annual meeting, NCTM regional meeting, and John Muir Academy. I actually ran into Dr. John Moyer at the NCTM regional meeting – he was presenting in the same room as I was immediately after my presentation!

It sounds like your new career is an exciting and rewarding one. The work sounds intriguing and fascinating. I’m sure things will go well for you. You were always very helpful, informative, and knowledgeable. The intellectual growth I experienced during my research is one of the most positive aspects of my Marquette education. Good luck to your future!

Excerpt from an e-mail that Carol Bajner (B.S. in COSC ’03) sent to Dr. Harris:

I wanted to tell you what I have been up to. Last Saturday I visited MU campus to see a basketball game and the new buildings and I took a walk around Cudahy for old times sake. The campus looks great and the new buildings are a big improvement. Walking around made me realize how far I have come in such a short amount of time – two years in May since I graduated.

I am still working for the Chicago Mercantile Exchange but have switched to a much better team. I am a programmer analyst on the electronic trading system-architecture and development team. Mainly my team codes the Globex system functionality that traders use to do electronic trading 24/7. We are also in charge of designing the Tandem system we use to make the trades and orders go through as fast as possible – we are dealing with milliseconds of time. I am doing C and COBOL currently. I am really enjoying it and my team is such a wonderful group of individuals. I have been on the team for around four months now. I am also taking a Futures class at CME so I can learn more about the market place. I hope you are doing well!

Where Is Dr. Jones Now?

This issue’s “Where is Dr. Jones now?” picture may be easy one if you have an atlas. Let me know if you can identify the precise location! The first person who emails us with the correct name of the location wins a Marquette shirt.

Office Staff Update

Kari Utzerath joined our department in March 2005 as our new Office Assistant. If her last name rings a bell, she is Mrs. Mary Pat Utzerath’s daughter-in-law.

Also joining us is Otis Stockstill, whose time we share with ITS as Technical Supporter Specialist. Kari and Otis replaced Susana Huerta and Uri Soroka, respectively.
From Left to Right: Marie Schwerm, Doug Harris, Mary Pat Utzerath, Jim Factor, Marian Manyo, Jack Moyer, Karl Byleen, Sue Lamon, Iqbal Ahamed, Paul Bankston, Peter Jones, Craig Strubel, Wim Ruitenburg, Gary Krenz, Ruta Bajorunaite, Steve Merrill, Rebecca Sanders, Francis Pastijn, Naveen Bansal, Anne Clough. (Absent: Kim Factor, G.G. Hamedani, Chyan-Jyue Liu, John Simms, Mike Slattery.)
Each MSCS newsletter includes an “Alumni News” section. We would like to know where you are and what you are doing. Who is your employer? Have you received further degrees or honors since you left MU? Please take a few minutes to complete this form and return it to the editor. Letters may be edited due to space constraints.

NAME: __________________________________________________________________________________________
ADDRESS: ______________________________________________________________________________________
YEAR OF GRADUATION: ___________ DEGREE (e.g., B.S. in CS): ___________________________________________
PERSONAL NEWS: _________________________________________________________________________________
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