Fall 2010 Departmental Meeting

Wednesday, September 8
4:10 p.m.
001 Carver Hall
Agenda

1. Welcome
2. Introductions of New People
3. Announcements
4. State of Departmental Programs
5. State of the Department
Introductions
New Faculty

Tathagata Basak
Introductions
New Lecturer
Mark Hunacek
Introductions
New Postdocs

Lale Ozkahya  Alejandro Velez  Michael Young
Introductions

Visiting Scholar

Soon-Geol Kwon
Sunchon National University
Returning from Sabbatical:

Krishna Athreya

Athreya spent time at the Indian Institute of Science in Bangalore, India, where he collaborated with faculty, attended two conferences and gave several invited lectures at various institutions. Athreya prepared four research papers on Gibbs measure asymptotics, branching random walks, size biasing in branching processes and continuity of translation operators. Three have been accepted for publication; the fourth is in revision. He also wrote papers on American mathematician T.E. Harris for Annals of Probability, Indian Mathematician K.G. Ramanathan and one on learning mathematics for Resonance, the Indian journal of science education.
Returning from Sabbatical: Gary Lieberman

Lieberman spent Spring semester at the Center for Mathematics and its Applications at the Australian National University in Canberra, Australia working with Neil Trudinger on nonlinear elliptic equations.
Returning from Sabbatical: Ling Long

Long spent the past year at the University of California, Irvine and the University of California, Santa Cruz continuing and extending research related to arithmetic properties of noncongruence modular forms; writing collaborative NSF grant with colleagues from Cornell, Pennsylvania State University and Purdue; and serving as principal organizer for NSF-AIM workshop on noncongruence modular forms.
Returning from Sabbatical: Richard Ng

Ng traveled to the Universidad Nacional de Cordoba, Argentina and the University of Southern California to work with leading mathematicians who are experts in the area of Hopf algebras, or the mathematical formulation of symmetries in nature. Ng’s focus has been on the structure of finite-dimensional Hopf algebras and their module categories which conceive the connection with mathematical physics and knot theory.
On FPDA this year

Domenico D’Alessandro will be at the University of Minnesota, Minneapolis, studying enumerative geometry and string theory.
On FPDA this year

**Ryan Martin** will spend time working on a variety of problems related to edit distance and hereditary properties of graphs. He will travel to several places, including Budapest, Urbana-Champaign, Richmond, Virginia and Newark, Delaware.
On FPDA this year

Yiu Poon will attend the International Linear Algebra Society meeting in Pisa, Italy; the Workshop on Numerical Range and Numerical Radius in Krakow, Poland; and two conferences in China.
New Graduate Students

Saleh Al Bashrawi
Saudi Arabia
King Fahd University

Julia Anderson-Lee
USA
Spelman College

Kim Ayers
USA
Bowdoin College

Juan Brandi
USA
University of Texas-Pan American
New Graduate Students

Rafael Del Valle
Puerto Rico
University of Puerto Rico-Rio Piedras

Nuwann DeSilva
Sri Lanka
University of Columbo

Jason Ekstrand
USA
Iowa State University

Andrew Foltz
USA
Luther College
New Graduate Students

Diana Hay  
USA  
UC-SC & Cal State-Monterey Bay

Lauren Herrmann  
USA  
University of North Dakota

Kirsten Hogenson  
USA  
University of North Dakota

Junzhao Hu  
China  
Hebei Nornal University & Zhejiang University
New Graduate Students

Nan Jungjaturapit
Thailand
University of Northern Iowa & ISU

Brian Lois
USA
Marquette University

Jesus Martinez
USA
University of Texas-Pan American

Katy Nowak
USA
SUNY-Genesco
New Graduate Students

Saulo Orizaga
USA
University of Texas – Pan American

Ween Sanyatit
Thailand
Chulalongkorn University

Anurag Sobti
India
Punjab University
Announcements

Departmental Picnic – Sunday, September 19, 4:00 p.m., Moore Memorial Park, Little Bluestem Shelter (Northridge area)

Space: 400, 401 and 408 are ready for use. IT equipment will be installed in the next few days.

Research brochure

Student/Course database: use of departmental data
State of Departmental Programs: Graduate

Paul Sacks
State of Departmental Programs: Graduate

Students currently enrolled

82 students currently enrolled
70 PhD, 12 MS
24 female
39 international (12 countries)
76 currently funded by us in some way
State of Departmental Programs: Graduate

New students

20 new students since last year

4 Spring 2010, 16 Fall 2010

8 female

6 international (5 countries)

17 currently funded
State of Departmental Programs: Graduate

Core course enrollments

Numerical Analysis 16
Algebra 18
Linear Algebra 22
Real Analysis 24
Applied Mathematics 19
Ordinary Differential Equations 13

Also 501 (15) 554 (15), 601 (11), 605 (12), 621 (8), 666 (8), 690V (13)
State of Departmental Programs: Graduate

Degrees awarded last year
(Fall 09 - Summer 10)

3 MS
10 PhD
State of Departmental Programs: Master of School Mathematics Program

Heather Bolles
State of Departmental Programs: 
Master of School Mathematics Program

30 teachers enrolled in at least one of the 3 courses offered Summer 2010

• 9 teachers completed their 3rd summer of core coursework in the MSM program

• 11 completed their 2nd summer

• 8 completed their 1st summer

• 6 teachers enrolled in the courses on-campus while 24 were off-campus, including one from Arizona and another from South Dakota
State of Departmental Programs:
Master of School Mathematics Program

Teachers enrolled in Summer 2010 courses were invited to participate in classes on campus on June 17. Twenty-one teachers participated.
State of Departmental Programs:
Master of School Mathematics Program

• 3 teachers graduated Summer 2010

• 3 have completed their final oral exam, will graduate Fall 2010

• 7 teachers are taking steps to graduate by Summer 2011
State of Departmental Programs:
Master of School Mathematics Program

Coursework for Summer 2011 includes Stat 410X (6 credits) which covers content from Stat 401 plus content teachers need to teach AP Statistics/Stat 101

If you have interest in teaching a course in the MSM program, in working with a teacher on his/her creative component, or in contributing a topic you feel would be of interest to a teacher working on a creative component, please see me.
State of Departmental Programs: Undergraduate

Jim Wilson
State of Departmental Programs:
Undergraduate Mathematics Majors

Bright & Eager: ~205

Dull & Distracted: ?
State of Departmental Programs:
Undergraduate Mathematics Majors

Sprague Room Events

• Pizza Party!

• Employment advice from Hualin (Max) Wang

• Calculus, the Musical!

• Actuary

• You! Give me a topic for stimulating presentation and discussion.
State of Departmental Programs: Instructional Mission

Jennifer Davidson
# Counting for Teaching Fall 2010 Classes

Number of student bodies in classrooms: 7664, as of Aug. 21, 2010

<table>
<thead>
<tr>
<th>Class</th>
<th>Number of students</th>
<th>Total student credit hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>140</td>
<td>471</td>
<td></td>
</tr>
<tr>
<td>141/2</td>
<td>873</td>
<td></td>
</tr>
<tr>
<td>150</td>
<td>927</td>
<td></td>
</tr>
<tr>
<td>165</td>
<td>1205</td>
<td></td>
</tr>
<tr>
<td>166 + 166H</td>
<td>805</td>
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<tr>
<td>265 + 265H</td>
<td>698</td>
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<tr>
<td></td>
<td></td>
<td>25,379</td>
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State of Departmental Programs:
Center for Excellence in Undergraduate Mathematics Education

As of early August the Center for Excellence in Undergraduate Mathematics Education (CEUME) is in its new permanent location, 408 Carver.

Outer office: Reception area, books on calculus, teaching, problem solving, and related materials

408C: Elgin Johnston

408B: Tracy McKay
State of Departmental Programs: Center for Excellence in Undergraduate Mathematics Education
State of Departmental Programs:
Center for Excellence in Undergraduate Mathematics Education

Current projects and activities

• Analysis of five+ years of student data (from registrar)
• New ALEKS Placement Exam
• Undergraduate Student Problem Solving Seminar
• Math Circle for Central Iowa Middle and High School students
• Calculus teaching seminar
• Invited speaker
• Interviews with downstream course instructors
• Central Iowa Teachers’ Circle
• Work with Iowa Community Colleges
Update on State of the Department: The Budget Year 2010-11

• Budget cut of 4.35% for 2 years - lower third in LAS

• Emergency teaching funds of $400,000

• $30,000 for hourly help (grading, help room)

• 2 retirements vs 1 new lecturer

• 3 new lecturer positions for Fall 2011, 1 mathematics education regular faculty

• Total of 74.5 TA positions in 2010/11 vs. 69 in 09/10 vs. 65 in 2008/09

• Summer school profit and supplies and services
Update on State of the Department: Consequences for 2010-11

• All faculty teach regular course load

• TA, help room and grading support at same level as last year

• Faculty professional development funds at least $20,000

• Expectation of teaching reductions in Spring 2011
Update on State of the Department: The Budget Year 2011-12

- Budget cut: about 1.3% current plans

- Salaries:
  - For FY10/11 late salary increases for up to 20% of faculty and P&S (1.37% in Math)
  - And college-wide increases for lecturers (8% in Math)

- Expectation for 3-4% salary increases for FY11/12
Update on State of the Department: Strategic Planning

• Strategic Planning Committee: Research clusters

• Research clusters approved by faculty: low turnout, small margin

• Visitor funds: open to all regular departmental seminars ($10,000)

• Position Responsibility Statements and longer term teaching loads

• Faculty development Spring 2011: 5-6 teaching reductions