

Pi Mu Epsilon National Conference at MAA MathFest

Pittsburgh, Pennsylvania

Wednesday afternoon August 4 through Friday evening August 6, 2010

PME STUDENT SPEAKER/ DELEGATE APPLICATION FORM

Each PME student speaker must complete a copy of this form. Student Pi Mu Epsilon members who are attending this conference, but are not speakers, should complete this form using the “Type of Application: Delegate” option. Up to five speakers per Chapter may be eligible for reimbursement for at least some of their transportation expenses. One delegate from a Chapter with no speakers may be eligible for partial reimbursement of transportation expenses. Additional Pi Mu Epsilon students register as non-reimbursed delegates to the Pittsburgh conference.

Application deadline: **5:00 p.m. EDT Friday, June 11, 2010**

A completed copy of this form should be mailed to the following to arrive before the application deadline:

Professor Angela Spalsbury
Department of Mathematics and Statistics
Youngstown State University
1 University Plaza
Youngstown, OH 44555

Part 1 To be Completed by All Pi Mu Epsilon Speakers and Delegates.

Type of Application (*circle one*): *Speaker* *Delegate*

Are you a U.S. Citizen? Check if yes:

(Federal regulations permit us to offer NSA funding only to U.S. citizens.)

Student Name:

Email Address:

Cell phone number:

Student Permanent Address:

Street:

City, State and Zip Code:

Student Summer Address (if different than permanent address):

Street:

City, State and Zip Code

College or University attended during 2009-2010 academic year:

Degree and major:

Intended Graduation Date (month and year):

PME Chapter:

State: Chapter (e.g. Alpha, Beta, etc.):

Month and year of initiation into PME:

Important Note: All student speakers and delegates must be members of the chapter at their home institution, which is the one that must nominate them as a speaker or delegate. Since this is an undergraduate conference, all research presented by speakers must have been completed while they were undergraduates. To insure that all work completed as an undergraduate has the chance to be presented, we do permit recently graduated students to present. However, we expect that student speakers and delegates have not completed more than 30 semester hours (or the equivalent) in a graduate program in mathematics (or a related field) prior to July 31, 2010.

Speakers and delegates requesting transportation reimbursement must have been initiated into the chapter at their home institution prior to submission of this application form.

PME Chapter Advisor Name:

PME Chapter Advisor E-mail:

PME Chapter Advisor Telephone Number:

Note: The Chapter Advisor will be contacted to verify PME membership information.

I have read the 'fine print' below regarding eligibility, benefits, and responsibilities for speakers and delegates: *YES NO*

I am applying for transportation support from Pi Mu Epsilon: *YES NO*

Tee Shirt Size (*Circle your choice*): Small Medium Large Extra Large

Banquet Meal Entree Choice (*Circle your choice*):

Dead Cow Dead Chicken Dead Fish Wilted Veggies

Part 2 Speakers and delegates applying for transportation support must complete this section.

(Speakers not applying for transportation should skip to Part 3. Delegates not applying for transportation submit only Part 1.)

I will make every effort to obtain low-cost transportation: *YES NO*

I will register for MathFest as a PME Speaker/Delegate either through the MAA website or using printed materials from the April issue of the MAA *FOCUS*: *YES NO*

You are very strongly encouraged to attend the many exciting mathematical activities at MathFest that do not conflict with PME activities. You are especially encouraged to attend the MAA-sponsored undergraduate student activities including Mathematical Jeopardy on Wednesday evening from 6:00-7:15 p.m., the MAA Lecture for Students at 1:00 p.m. on Thursday, the MAA Undergraduate Student Activity Sessions at 1:00 p.m. on Friday, and the MAA Ice Cream Social at 9:00 p.m. on Friday.

To qualify for Pi Mu Epsilon transportation funding, a student speaker or delegate must attend all Pi Mu Epsilon activities at the 2010 MathFest in Pittsburgh. In particular:

I will attend the student reception 4:30 p.m. Wednesday afternoon to show PME Treasurer Leo Schneider my air fare receipts and/or to verify my mileage for driving. I will pick up my complimentary PME tee-shirt and free ticket to the PME banquet at this time: *YES NO*

I will attend all of the sessions of PME talks Thursday afternoon, Friday morning, and Friday afternoon: *YES NO*

I will attend the PME banquet 6:00 p.m. Friday. (Your PME Speaker/Delegate registration at MathFest includes your ticket to this banquet.): *YES NO*

I will complete the PME Participant Evaluation Form, which will be available from the moderator at each session of PME talks.

I will attend the Frame Lecture given by Professor Nathaniel Dean at 8:00 p.m. after the PME banquet Friday evening. After this event, the Participant Evaluation Form must be presented to PME Treasurer Leo Schneider, who will present you with your travel reimbursement check from PME.

If you checked "No" for any statement, you must seek a prior exemption from [David Sutherland](#), President of Pi Mu Epsilon. Students who miss any of the above without an exemption jeopardize their entire PME reimbursement.

Part 3 Student speakers must complete the remainder of this form.

The Society for Industrial and Applied Mathematics, SIAM, may offer a prize for an outstanding presentation on applied mathematics. The MAA's Special Interest Group for Environmental Mathematics, SIGMAA-EM, may offer a prize for an outstanding presentation on environmental mathematics. The MAA's Special Interest Group on Biology, BioSIGMAA, may offer a prize for an outstanding presentation on research at the nexus of mathematics and biology

The purpose of the following question is to compile lists of talks that might be eligible for prizes sponsored by SIAM, SIGMAA-EM, and BioSIGMAA.

Please check exactly one of the following:

I consider my talk to be in the area of Environmental Mathematics

I consider my talk to be in the area of Applied Mathematics

I consider my talk to address a problem at the nexus of mathematics and biology

My talk does not fall into any of the three preceding categories

Due to the large number of students who wish to present at summer meetings and with a desire to avoid redundancy in their programs, the MAA Committee on Undergraduate Student Activity and Pi Mu Epsilon have agreed not to accept papers submitted by the same student to both paper sessions at MathFest. This applies even if the papers are different. Furthermore, in the case of joint authorship, it is not permissible for one co-author to apply to one session while another submits the same paper to the other session. Under no circumstances will a student be allowed to apply for transportation funds from both organizations. Therefore:

I agree not to apply to give a paper at the MAA Student Paper Session: *YES NO*

.All of the rooms in which the presentations will be given in Pittsburgh will be furnished with a projection system (to use PowerPoint, for example), but students must furnish their own computer and cables to connect to the VGA port of the projector. Chalkboards will not be provided.

I understand the equipment policy: *YES NO*

I am aware that the 15 minute time limit for presentations will be strictly enforced: *YES NO*

Complete Title of Presentation:

Abbreviated Presentation Title (maximum of 40 characters):

Topic Category (Check all that apply):

- History of Mathematics
- Combinatorics and Graph Theory
- Number Theory
- Linear Algebra, and Related Topics
- Probability and Statistics
- Differential Equations, Dynamical Systems, Chaos, and Fractals
- Geometry and Topology
- Real Analysis and/or Complex Variables
- Applied Mathematics, including Mathematical Biology and Environmental Mathematics
- Mathematics Education
- Other (Please Describe):

Abstract (50 words or less; LaTeX code can be used):

Presentation Faculty Advisor Name*:

Presentation Faculty Advisor E-mail:

Presentation Faculty Advisor Telephone Number:

*Note: The Presentation Faculty Advisor should be the faculty member who served as your faculty advisor or instructor for the project on which your presentation is based. The Presentation Faculty Advisor will be contacted to verify suitability of the project for presentation at the Pi Mu Epsilon National Meeting.

If the PME Advisor and the Presentation Faculty Advisor do not receive email confirmation of acceptance of your presentation within ten days please email Professor Leo Schneider (Leo@jcu.edu). All speakers and delegates requesting reimbursement should contact Professor Leo Schneider if they do not receive an email inquiry about their transportation costs within three weeks of receiving their confirmations. Questions or comments about the conference itself should also be directed to Professor Schneider.

All Speakers regardless of whether they are seeking transportation support or not, and all Delegates who seeking transportation support should mail these first six pages to:

**Professor Angela Spalsbury
Department of Mathematics and Statistics
Youngstown State University
1 University Plaza
Youngstown, OH 44555**

Delegates not requesting transportation support submit only page 1.

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The FINE PRINT for Reimbursed Speakers and Delegates

We urge all student members of Pi Mu Epsilon who will be attending the Pi Mu Epsilon Conference in Pittsburgh to complete the Pi Mu Epsilon application so that we may acknowledge their attendance in the student program for this meeting and at the Pi Mu Epsilon Banquet. One to five student speakers per Chapter will receive transportation and subsistence reimbursement provided they fulfill the eligibility and responsibility requirements outlined below. For Chapters not sending any speakers, one delegate from the Chapter may be eligible for 50% transportation reimbursement. Other student members should apply as non-reimbursed delegates.

Speaker and delegate eligibility for transportation reimbursement

All student speakers and delegates must be members of the chapter at their home institution, which is the one that must nominate them as a speaker or delegate. Since this is an undergraduate conference, all research presented by speakers must have been completed while they were undergraduates. To insure that all work completed as an undergraduate has the chance to be presented, we do permit recently graduated students to present. However, we expect that student speakers and delegates have not completed more than 30 semester hours (or the equivalent) in a graduate program in mathematics (or a related field) prior to July 31, 2010. Speakers and delegates requesting transportation reimbursement must have been initiated into the chapter at their home institution prior to submitting their applications to speak at the conference.

Registration deadline and other details

All student speakers must submit their titles and abstracts before 5:00 p.m. EDT on Friday, June 11, 2010. Early submissions are appreciated, since they help with advance planning.

Presentations with multiple speakers usually do not work well in a 15-minute format and are discouraged; reimbursement for multi-speaker talks is the same as if there were just one presenter.

There will be overhead projectors that can be connected to speakers' laptops. Speakers must furnish the computer and all cables necessary to connect their laptop to the VGA hookup on the projector. Speakers are advised, if they find their room free prior to their talk, to test their equipment with the projection system.

Speaker and delegate benefits

Pi Mu Epsilon makes transportation grants to student speakers and delegates to cover costs not covered by other sources. (No double dipping!) Furthermore, Pi Mu Epsilon speakers may not also apply to present a paper at the MAA Student Paper Sessions at MathFest.

One or two speakers per chapter receive full transportation reimbursement up to \$600 each. For chapters with more than two speakers, the maximum reimbursement is up to \$600 per student and the maximum total reimbursement is \$1200 for all the students from the chapter. **Example 1:** Chapter Alpha sends two speakers whose transportation expenses are \$650 and \$550. These speakers are reimbursed \$600 and \$550, respectively. **Example 2:** Chapter Beta sends six speakers whose transportation expenses not covered by their home institution are \$150 each. Each speaker is reimbursed \$150. **Example 3:** Chapter Gamma sends three speakers whose transportation expenses are \$500 each. Each of the three is reimbursed \$400.

The National Security Agency supports this conference by giving Pi Mu Epsilon a grant to distribute to the student speakers to partially reimburse them for food and housing expenses. The amount each speaker receives is a function of the size of the grant and the number of speakers. In recent years the minimum has been \$125, and the maximum \$200. The exact per-speaker reimbursement amount is a function of the number of speakers and will be determined by a vote of the PME Council shortly before the conference. These NSA funds cannot be distributed to non-USA citizens. However, in most years past, PME has paid non-USA citizens a partial or equivalent stipend from its own funds.

A chapter with no speakers may send one delegate who receives reimbursement for half the cost of transportation up to \$300. Funds are not available for additional delegates.

All reimbursed Pi Mu Epsilon speakers and delegates are required to attend Friday evening's PME banquet.

Every Pi Mu Epsilon speaker and delegate will receive his or her ticket to the PME banquet as well as a Pi Mu Epsilon tee shirt when he or she checks in at Wednesday afternoon's Student Reception.

Eleven to fourteen prizes for outstanding talks:

- The American Mathematical Society with a donation of \$1000 and the American Statistical Association with a donation of \$450 will enable Pi Mu Epsilon to present ten \$150 cash [AMS/ASA] awards to speakers on the basis of the quality of the exposition and research and the appropriateness to an undergraduate audience.
- The Committee on Undergraduate Research awards one \$150 [CUR] cash prize to a speaker who presents outstanding undergraduate research.

- Sponsored awards: For presentations equivalent in quality to those receiving the AMS/ASA and CUR awards, organizations with a focus on a specialized area of mathematics may donate these awards:
 - The Society for Industrial and Applied Mathematics [SIAM] may offer a \$150 cash award for a presentation based on applied mathematics.
 - The Special Interest Group of the MAA for Environmental Mathematics [SIGMAA-EM] may offer a \$150 cash award for a presentation about applied mathematics.
 - The Special Interest Group of the MAA for Biology [BioSIGMAA] may offer a \$150 cash award for a presentation that addresses a problem at the nexus of mathematics and biology

In order to be eligible for the SIAM, the SIGMAA-EM, or the BioSIGMAA award, speakers must select at most one of these award categories when they register to speak. No speaker will receive an award from more than one of the above award categories.

Speaker and delegate responsibilities

To receive the full monetary support indicated above, student Speakers and Delegates must pre-register for the MAA meeting and attend ALL the PME activities unless excused by the PME President [David Sutherland](#). The PME activities begin at 4:30 p.m. Wednesday afternoon with the PME/MAA Student Chapter reception and conclude with the Friday evening Frame Lecture. In particular, student Speakers and Delegates:

- Must attend Wednesday's student reception and sign off on their reimbursement amount with PME Secretary/Treasurer [Leo Schneider](#), showing receipts for air fare, etc. Students will receive their banquet tickets and tee-shirts at this time.
- Must attend the PME talks starting at 2:00 p.m. Thursday afternoon, and at 8:30 a.m. and 2:00 p.m. on Friday.
- Must register for MathFest at <http://www.maa.org/> as an undergraduate student. (Do **not** purchase a ticket to the PME banquet since PME will purchase your ticket for you from the MAA.)
- Must attend the PME banquet Friday because at the ceremony that concludes the banquet all PME speakers and delegates will be recognized and the cash prizes will be distributed to the speakers who won the awards.
- Must attend the Frame Lecture Friday evening and, at the conclusion of the lecture, turn in their participant evaluation form and pick up their checks.

In addition, Pi Mu Epsilon Speakers and Delegates are strongly encouraged to:

- Attend the Mathematical Jeopardy Wednesday at 6:00 p.m., beginning immediately after the Student Reception. Chapters with four or more members attending the conference may apply to field a team of four in the Mathematical Jeopardy competition. Questions regarding this event should be directed to Professor Robert Vallin (RVallin@maa.org).
- Attend some of the one-hour invited MAA addresses Thursday and Friday mornings.
- Attend the MAA Lecture for Students Thursday afternoon at 1:00 p.m.
- Attend one of the MAA Student Activity sessions, Friday at 1:00 p.m.
- Attend the MAA Student Celebration Ice Cream Social at 9:00 p.m. Friday, immediately following the Frame Lecture. The awards for the speakers from the MAA Student Chapters will be distributed to their speakers at this gathering. Attend and enjoy the ice cream!
- Attend the MAA Mathematical Contest in Modeling Winners' Session Saturday morning at 2:30 p.m.
- Attend the Student Problem Solving Competition Saturday at 1:00 p.m.
- Attend the special session of expository talks for undergraduates given by current mathematics Ph.D. students Saturday from 1:00 to 5:00 p.m.

A Preliminary Schedule and Additional Information will be added when available.