

## The Youngstown State University Undergraduate Mathematics Conference

By Angela Spalsbury

Youngstown State University has hosted an undergraduate mathematics conference for the past six years. For the first five years, the conference was financed totally by the local chapter of Pi Mu Epsilon and contributions of some local merchants. Last year it was supported by a grant from the MAA that was made possible by the NSF Grant DMS-0241090 (see page 18). This article describes how we run a conference that has been of great benefit to undergraduate students interested in mathematics, and at very little cost. The philosophy of the YSU conference is to have a mathematics conference for students run totally by students.

The YSU conference is held on the third Saturday in February. This time is chosen because it closely follows the COMAP Mathematical Competition in Modeling, which many students in the region enter, and is about 6 weeks before the Ohio and Allegheny Mountain MAA Section meetings that students at our conference are encouraged to attend. Our conference serves as a training stage for the presentations that will be given at the Section meetings.

We invite students from approximately 40 colleges and universities within a 150-mile radius of YSU. We do not start the conference until 10:00 AM; this permits students to drive to YSU on the morning of the conference and not incur lodging expenses. The conference provides breakfast as well as a pizza lunch, so the only expense to students attending the conference is transportation. The MAA-NSF funding last year was used primarily to support travel expenses for visiting students.

The conference has grown in attendance from about 70 students from 6 schools to more than 100 students from 15 schools. This represents less than half the schools in the region, so we still have ample room to grow.

Since we started this conference without external (or much internal) funding, we had to find ways to minimize the cost while maximizing the benefit. The first decision was to do all of the communication electronically. A contact faculty member is found at each regional school to, hopefully, encourage students to attend and speak. Students who attended from the previous year are also on the contact list. With the MAA-NSF funding we were also able to send letters and posters advertising the conference several months prior to the conference, but it is not clear that this significantly increased the attendance. Personal contact seems like the best approach. The obvious advice (but the hardest to follow) is to start planning early! It takes a lot of time to convince students that they can give a talk, and getting them ready to present a good one cannot be rushed.

Last year 35 students gave presentations on a wide variety of topics and levels, ranging from REU experiences and senior projects to statistics and calculus-level projects. One of the more popular sessions involved the COMAP Mathematical Competition in Modeling, which is held the first weekend in February. In addition to the talks, we had a room set up with space for graduate school recruitment and REU information, as well as demonstrations of educational technology.

Our conference is probably different from other conferences of this type in that we do not invite faculty or well-known mathematicians to give presentations. We want the students to have the experience of giving talks in front of their colleagues and to organize the conference in such a way that they, not the faculty, think is of most interest.

The organization and planning is done by YSU undergraduate students, with a bit of supervision by faculty, providing a valuable learning experience for dealing with administration at various levels.



*Faculty and students hanging around and eating pizza at the YSU conference. Photo courtesy of Douglas Faires.*

Some of their responsibilities include reserving the classrooms and appropriate audio visual machines used for the talks; securing donations of donuts and juice for breakfast and pizza and soda for lunch; updating the website with current information, including directions to campus and parking instructions; processing the online registration forms and abstracts; designing the time table for the talks and notifying students when and where they will be presenting; creating and printing the programs, name tags, and speaker certificates; checking that the classrooms are clean and that the desks are arranged in an orderly fashion; and sending handwritten thank you cards to every donor and every school that sends students.

In summary, the conference is run very inexpensively and provides good experience in mathematical presentations for all of the students. For the YSU students it is truly a remarkable experience; they develop the life-long organizational skills that are required of anyone in a responsible position, and at the same time share the wonder and beauty of mathematics with students from other institutions.

For information on the conference and its organization, please see <http://www.as.yzu.edu/~math/pme/conferences/ysu2005.html>. If you are considering planning a conference and I can be of any assistance, please contact me at [angie@math.yzu.edu](mailto:angie@math.yzu.edu).