

A Word from the Chair

You hold in your hands evidence of a continuing success story. The *Ball State Undergraduate Mathematics Exchange* provides a unique experience for our majors. The *Exchange* is becoming a recognized venue through which students can disseminate polished, refereed articles of interest to majors at Ball State University and our sister schools.

From its inspiration in 2002, the *Exchange* has aspired to the distinction of being created for and by students. With the guidance of Hanspeter Fischer and Ahmed Mohammed and initiative sponsorship by the Eli Lilly Foundation, the idea came to form. The design and layout is produced by students, and the student editor plays a key role in article development. In addition to publishing results of student research projects, the issues also include abstracts from undergraduate Honors College theses, reports of internship experiences and colloquia, and other departmental news.

This issue includes quality articles which touch upon a variety of topics, including an award-winning teaching activity, a new and creative application of demand theory, and a fresh analysis of negatively curved groups. Reports from recent student work in cryptography and actuarial science internships are also included.

On a personal note, may I offer words of appreciation to my predecessor, Dr. Dale Umbach, who completed eight years as Chair of the Department in Summer 2005. Following a sabbatical, Dale resumes his role as Professor of Statistics in the Department.



A handwritten signature in cursive script that reads "John Emert".

Dr. John Emert

Chair and Professor of Mathematical Sciences