

**THIRTEENTH ANNUAL
NORTHEASTERN SECTION
OF THE
MATHEMATICAL ASSOCIATION
OF AMERICA (NES/MAA)
PRESKENIS LECTURE**

IN SEARCH OF INFINITY
JAMES E. BRENNAN
UNIVERSITY OF KENTUCKY



FRAMINGHAM STATE UNIVERSITY
100 State Street, P.O. Box 9101
Framingham, MA 01701-9101



THURSDAY, APRIL 16, 2015

Abstract: “The infinite! No other question”, declared David Hilbert, “has ever moved so profoundly the spirit of man.” Without assuming any specialized knowledge of the audience, it is my goal to lay the foundation for a deeper understanding of Hilbert’s remark by engaging in a conversation around some of the paradoxes associated with the concept of infinity. The most famous are perhaps Zeno’s paradoxes of motion which are still being debated today. On the other hand, one of the works in the Aristotelian corpus, known as *Mechanica*, contains a problem which attracted wide attention at an earlier time, but is now hardly mentioned. That is the problem of *Aristotle’s Wheel*, which is exemplified in something as ordinary as a common rolling pin. Nevertheless, more than two millennia after its inception, the problem surrounding the *Wheel* played a central role in Galileo’s greatest work, *Dialogues Concerning Two New Sciences*, published in 1638. The occasion in the *Dialogues* prompting a discussion of the *Wheel* is a question as important as the ultimate constitution of matter. After examining a few seemingly paradoxical ideas and noting their impact in the long history of thought, I hope that by evening’s end you can, with William Blake, begin

*to see a World in a Grain of Sand
and a Heaven in a Wild Flower,
Hold Infinity in the Palm of your Hand
and Eternity in an Hour.*

A dedicated teacher committed to excellence, a serious scholar, a popular son of South Boston, and a gentleman, Ken Preskenis had a passion for mathematics and for sharing that love with others, especially, youngsters. He joined the faculty at Framingham State University in 1977 after teaching at Newton College and then at Boston College for a total of 14 years. Ken was the author of a number of articles in analysis and mathematics education, a regular attendee and contributor at NES/MAA meetings, a South Boston Athletic Hall of Famer, and a recipient of the Michael E. Glynn South Boston Community Service Award. The Kenneth J. Preskenis Scholarship Fund has been established in his memory at Framingham State University.

We thank

- Office of the Vice President of Academic Affairs for sponsoring the Reception,
- Sodexo,
- Office of Development and Alumni Relations,
- Sheraton Framingham Hotel & Conference Center,
- Cengage Learning,
- W.H. Freeman, part of Macmillan Education,
- Pearson Education,
- Tammy Laurent, Ralph Eddy, and Dining Services for preparing the buffet and the reception,

and

- Office of Campus Events for making the reservations, arrangements, and set-up for the reception and Dr. Brennan’s presentation.

Please join us again next year for the *Fourteenth Annual NES/MAA Preskenis Lecture*.