

SIGMAA Activities
Joint Mathematics Meetings
Baltimore, January 15 – 18, 2014

SIGMAA Officers Meeting

Thursday, 10:30 a.m. – 12:00 noon

Chaired by **Karen A Marrongelle**, Oregon University System

Mathematics and the Arts: SIGMAA ARTS

Contributed Paper Session

At the Intersection of Mathematics and the Arts

Thursday afternoon

Mathematical and Computational Biology: BIO SIGMAA

Business Meeting

Thursday, 6:00 – 6:50 p.m., BCC 349

Guest Lecture

Thursday, 7:00 – 8:00 p.m., BCC 349

Speaker: Lisa Fauci, Tulane University

Title: *Explorations in phytoplankton fluid dynamics*

Contributed Paper Session

Trends in Undergraduate Mathematical Biology Education

Friday morning

Mathematicians in Business, Industry and Government: BIG SIGMAA

Contributed Paper Session

Mathematics Experiences in Business, Industry, and Government

Friday 1:00-6:00 p.m., BCC 339

Guest Lecture

Friday, 6:30 – 7:20 p.m., BCC 339

Speaker: William Noel, University of Pennsylvania

Title: *Eureka! The Archimedes Palimpsest*

Abstract: This presentation centers on a manuscript of extraordinary importance to the history of science, the Archimedes Palimpsest. This thirteenth century prayer book contains erased texts that were written several centuries earlier still. These erased texts include two treatises by Archimedes that can be found nowhere else, *The Method* and *Stomachion*. The manuscript sold at auction to a private collector on the 29th October 1998. The owner deposited the manuscript at The Walters Art Museum in Baltimore, Maryland, a few months later. Since that date the manuscript has been the subject of conservation, imaging and scholarship, in

order to better read the texts. The Archimedes Palimpsest project, as it is called, has shed new light on Archimedes and revealed new texts from the ancient world. These new texts include speeches by an Athenian orator from the fourth century B.C. called Hyperides, and a third century A.D. commentary on Aristotle's Categories. The lecture also considers more broadly the digitization of medieval manuscripts, and the impact that this will have on the study of history and literature before 1500.

Reception

Friday, 7:30 – 8:00 p.m., BCC 339

Business Meeting

Friday, 8:00 – 9:00 p.m., BCC 339

Panel Discussion

Nonacademic Career Paths for Mathematicians

Friday, 9:00 – 10:20 a.m., BCC 327

History of Mathematics: HOM SIGMAA

Short Course

**Reading, Writing and Doing the History of Mathematics:
Learning the Methods of Historical Research**

Monday and Tuesday

Contributed Paper Session

The History of Mathematical Communities

Thursday afternoon

Contributed Paper Session

Putting a Theme in a History of Mathematics Course

Saturday morning

Math Circles for Students and Teachers: SIGMAA MCST

Philosophy of Mathematics: POM SIGMAA

Contributed Paper Session

Is Mathematics the Language of Science?

Wednesday morning

Quantitative Literacy: SIGMAA QL

Contributed Paper Session

Assessing Quantitative Reasoning and Literacy

Wednesday morning

Research in Undergraduate Mathematics Education: SIGMAA RUME

Contributed Paper Session

Research on the Teaching and Learning of Undergraduate Mathematics
Thursday morning and afternoon

Statistics Education: SIGMAA STAT-ED

Contributed Paper Session

Data, Modeling, and Computing in the Introductory Statistics Course

Friday afternoon

Mathematics Instruction Using the Web: WEB SIGMAA

Business Meeting and Reception

Friday, 5:00 – 5:30 p.m., BCC 350

Guest Lecture

Friday, 5:30 – 6:30 p.m., BCC 350

Speaker: Doug Ensley, Shippensburg University

Title: *Mobile Math Apps*

Abstract: Smartphones offer a unique opportunity to put educational technology in a student's pocket 24 hours a day. However, screen size, processor speed, and data connectivity issues present real challenges for developers, who are often focusing instead on less ubiquitous tablet technology. The Mobile Math Apps project led by Ensley and Kaskosz explores the interfaces that work well on this platform, the assessment data that tell us how students benefit from mathematics apps, and the lessons learned that will inform future development for the smartphone.

Contributed Paper Session

Using Online Resources to Augment the Traditional Classroom

Friday morning

Panel Discussion

Two Worlds Collide: MOOCs and the Ivory Tower

Saturday, 8:30 – 9:50 a.m., BCC 307

Environmental Mathematics: SIGMAA EM

Workshop

The Environment, Mathematics, and Community Engagement

Saturday, 2:00 – 5:00 p.m., BCC 345

Contributed Paper Session

USE Math: Undergraduate Sustainability Experiences in the Introductory Mathematics Classroom

Saturday morning