## MATH, MAGIC, & MYSTERY

at the 2014 Joint Mathematics Meetings

Two great sessions...open to the public...and FREE!



The Mathematics behind Hollywood's Visual Effects

## **FEATURING**

Eitan Grinspun Columbia University

> 3:00-4:00 p.m. Ballrooms | & II 400 Level, BCC

# Weird Ways to Work with Pi

An accessible and interactive presentation for middle- and high-school educators



l0:00-l0:50 a.m. Room 327, BCC

**Baltimore Convention Center** January 18, 2014

> Check out our full program jointmathematicsmeetings.org/jmm



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#### P.O. Box 90973 • Washington, DC 20090-0970 Mathematical Association of America



### DON'T MISS THIS BLOCKBUSTER EVENT!

One day only.

Eitan Grinspun, Columbia University Movie Magic: The Mathematics behind Hollywood's Visual Effects AAA-AAM Gerald and Judith Porter Public Lecture

movie magic and the exciting mathematical questions that arise. the world of applied mathematics with an artistic flair. In this talk, aimed at the general audience, we will explore various aspects of film in real life are instead simulated on computers using mathematical models of fracture, fire, granular media, and liquids. This is mathematical models of hair, fur, skin, and clothing. Explosions, floods, and disasters that would be dangerous if not impossible to Blockbuster films have amazing visual effects. Virtual stunt doubles, animated characters, and imaginary creatures are built from

#### SIGMAA on Math Circles Workshop

James Tanton, Mathematical Association of America Weird Ways to Work with Pi: An accessible and interactive presentation for midde- and high-school educators

triangle? What interesting non-circular problems can be solved with non-circular pi-values? to its diameter. But I ask... Who said the concept of pi should apply only to circles? What is pi for a square? What is pi for a right Many a mathematical scholar has contemplated the meaning and mystery of the number pi: the ratio of the circumference of a circle

Let's get weird and quirky and let pi loose on all kinds of wild shapes!

Let's strengthen our understanding of geometry by pushing concepts to the edge.

some weird calculations. Bring your students tool Be sure to bring pencil and paper: You won't be able to resist jotting down thoughts, working through some curious ideas, and doing

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