



Department of Mathematics and Statistics

Colloquium

Wednesday* September 20

AMB 164 4:00 - 5:30 pm

Exploding Dots: Joyous, Uplifting, Astounding Mathematics for the World

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Mathematical Association of America

Abstract

Here is a story that isn't true. When I was a young child I invented a machine (not true) that was nothing more than a series of boxes that could hold dots. And these dots would, upon certain actions, explode. And with this machine (in this non-true story) I realized that I could explain true things! I could explain all the mathematics of arithmetic I learnt in grade school (true), all the of the polynomial algebra I was to learn in high-school (true), elements of calculus and number theory I was to learn in university (true), and I could explore unanswered research questions mathematicians are studying today (also true)!

Come join us as we explore the power of pushing a simple mathematical construct to new heights. Experience how to bring deep creative discovery first-hand to students of all ages - middle school, high school, college, and beyond.

Exploding Dots is the chosen roll-out topic for Global Math Week, Oct 10-17, 2017. Come see why thousands of teachers from 82 different countries across the globe have already pledged to work with over 300,000 students on this very topic.

About the presenter: Believing that mathematics really is accessible to all, James Tanton (PhD, Mathematics, Princeton 1994) is committed to sharing the delight and the beauty of the subject. In 2004 James founded the St. Marks Institute of Mathematics, an outreach program promoting joyful and effective mathematics education. James recently relocated to Washington D.C. and is currently a visiting scholar of the Mathematical Association of America. He also conducts the professional development program for Math For America program in D.C. James is the author of *Solve This: Math Activities for Students and Clubs*, (MAA, 2001), *The Encyclopedia of Mathematics*, (Facts on File, 2005), *Mathematics Galore!* (MAA, 2012) and twelve self-published texts. He is the 2005 recipient of the Beckenbach Book Prize, the 2006 recipient of the Kidder Faculty Prize at St. Marks School, and a 2010 recipient of a Raytheon Math Hero Award for excellence in school teaching. He also publishes research and expository articles, and through his extracurricular research classes for students has helped high school students pursue research projects and also publish their results.

Refreshments at 3:45

*Note special day and time