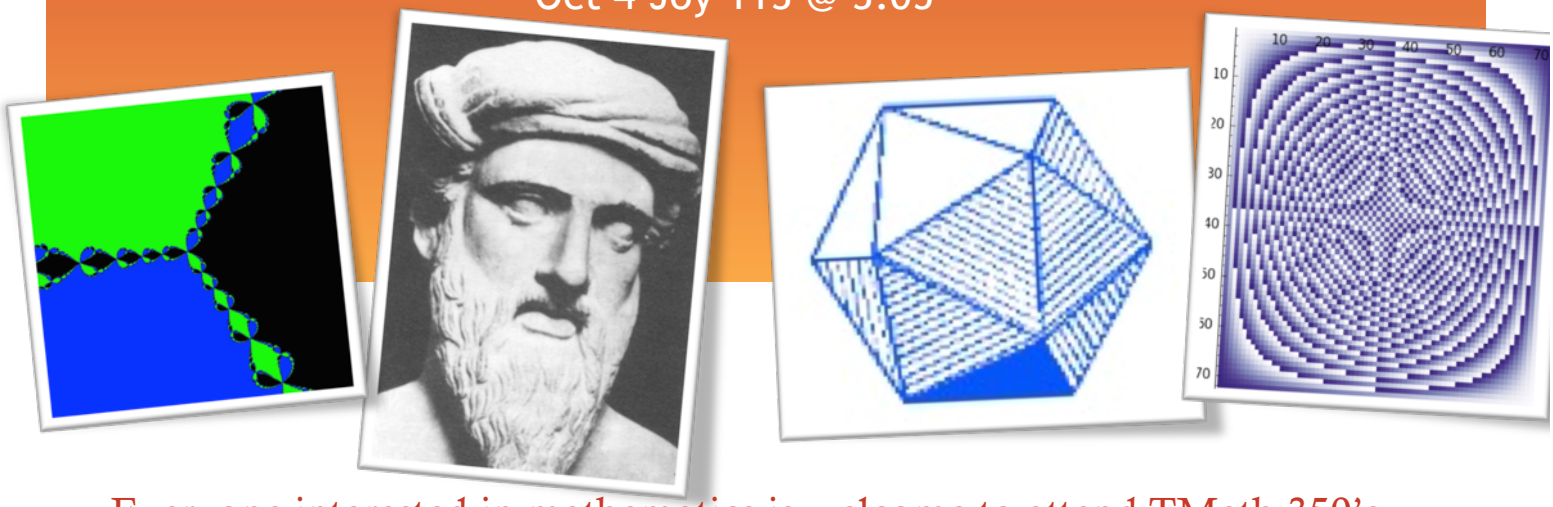
Math (Enthusiast) Series

Oct 4 Joy 113 @ 3:05



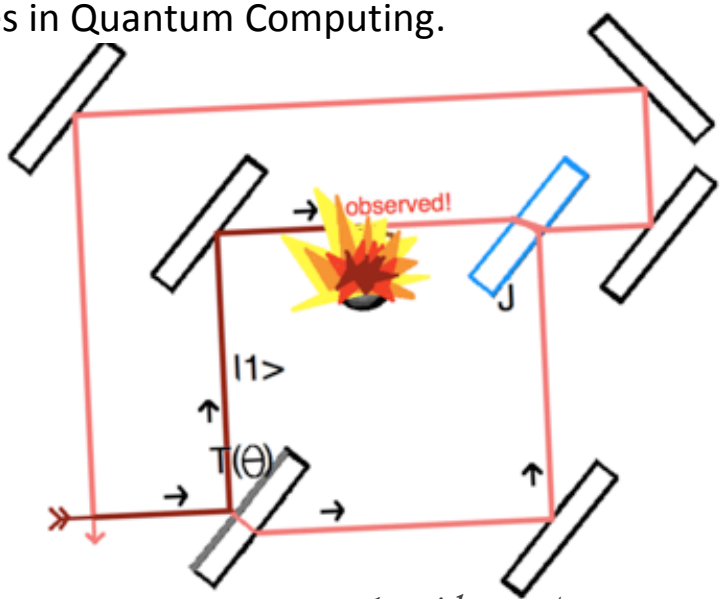
Everyone interested in mathematics is welcome to attend TMath 350's presentations every Tuesday of Autumn quarter (and some Thursdays!)

10/4/16 | Dr. Ryan Card (UWT, probabalist)

Quantum Bomb Detector

Consider a collection of bombs, some of which are duds. Suppose that usable bombs have a light sensor, which will absorb an incident photon and detonate the bomb. Dud bombs have a malfunctioning sensor, which will not interact with photons in any way. The problem is to sort out the usable bombs from the duds, without setting off the usable bombs. This seems impossible at first, but it is possible using some techniques in Quantum Computing.

We will introduce the idea of quantum superposition and measurement, and illustrate it using the famous two-slit experiment. Then we will describe a way to use this idea to sort out the usable bombs from duds, without setting off the usable bombs.



Detecting live bombs with quantum physics and math!

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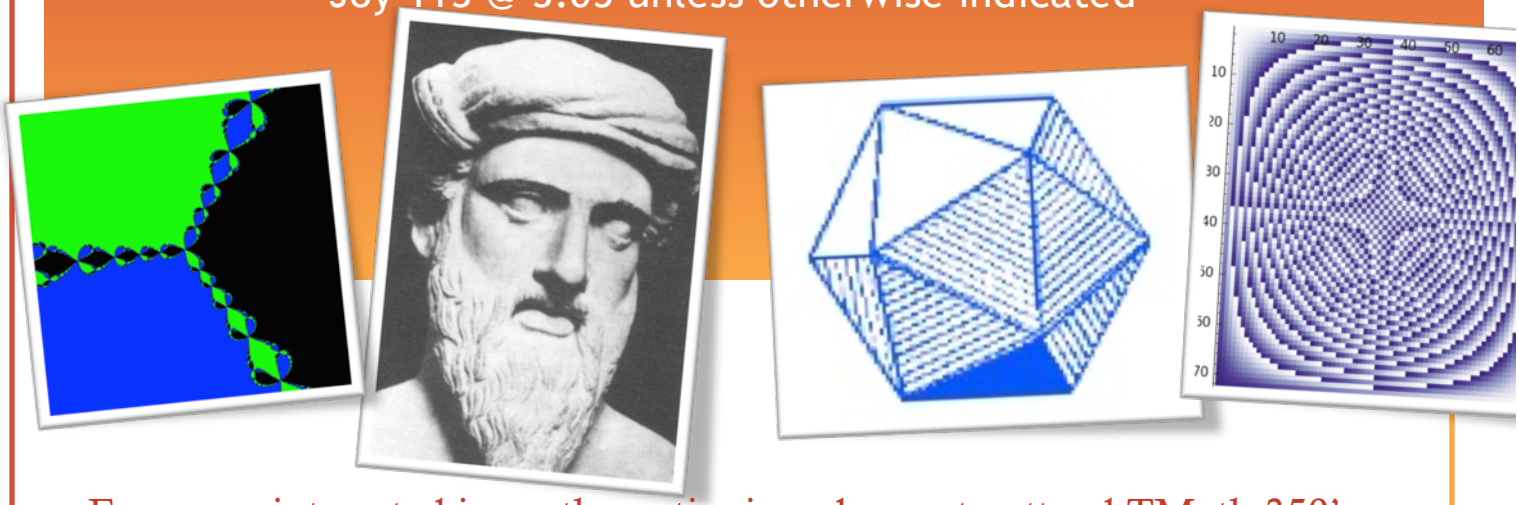

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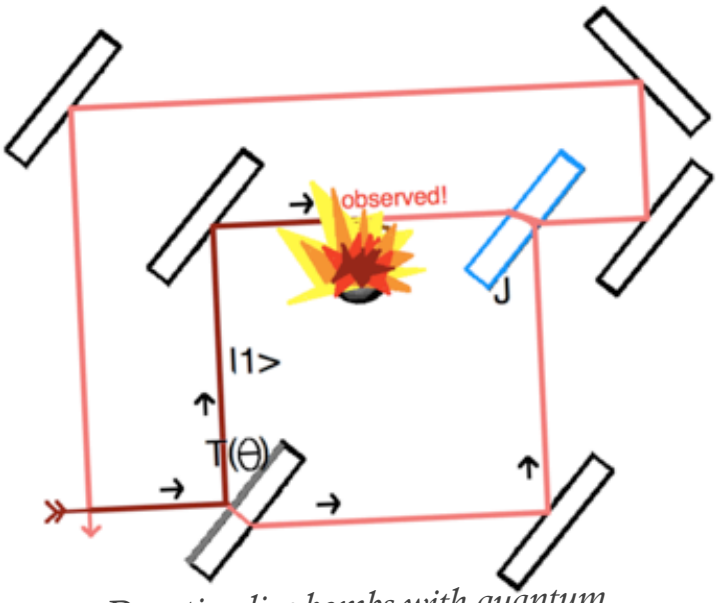
10/4/16	Dr. Ryan Card (UWT, probabalist)
10/11/16	Dr. Julia Aguirre (UWT, math education)
10/18/16	Dr. Julie Eaton (UWT, analyst)
10/25/16	Dr. Erik Tou (UWT, math historian & number theorist)
11/1/16	Calvin Yee (Mattson Middle School, teacher) at **4:05pm**
11/8/16	Kirsten Grace (Microsoft, software engineer & UWT alumn)
11/15/16	Career Panel (Actuary, Educators, Industry) at **4:05pm**
11/29/16	Student Presentations
12/1/16	Student Presentations
12/6/16	Student Presentations
12/8/16	Student Presentations
12/15/16	Student Presentations



Detecting live bombs with quantum physics and math!