# MATH FOR EVERYONE

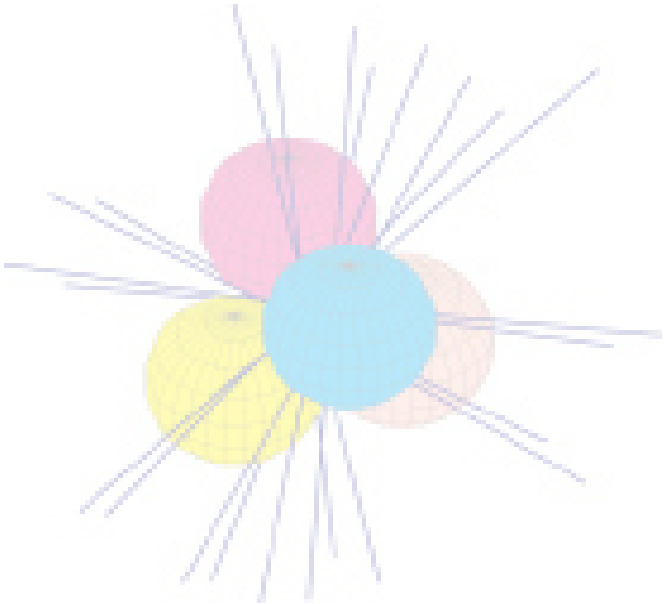
TALKS AND DISCUSSIONS ESPECIALLY FOR UNDERGRADS

## Tangents to Four Unit Spheres:

### An Introduction to Enumerative Algebraic Geometry

**David Cox, Ph.D.**
Amherst College

Thursday, February 27, 2014
5:00 p.m., 105 Jordan Hall of Science



This talk will begin with the problem of counting lines that are simultaneously tangent to four spheres of radius one floating in space. Prof. Cox will describe various counting problems that arise in algebraic geometry. Some date back to the 19th century while others are more recent, coming from mirror symmetry in string theory, a part of quantum field theory. At the end of the talk he will return to tangents to unit four spheres, where he will sketch a solution and state an open problem. The talk presumes nothing beyond multivariable calculus.

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