BOSTON UNIVERSITY GEOMETRY SEMINAR

NOTE: SPECIAL DATE!

COMPARING VIRTUAL CURVE COUNTS

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January 17, 2012, 4:00 – 5:00pm
Math/Computer Science, Room 148
111 Cummington Street, Boston

Tea: 3:30pm in Room 144

Abstract: The collection of algebraic curves in a projective complex variety can be completed to a moduli space in many different ways. When the number of equations of one of these moduli space matches the number of variables, one expects the moduli space to be a finite collection of points. In practice, one is rarely so fortunate: even when a moduli space's expected dimension is zero, the space may have high dimension and bad singularities.

Nevertheless, it is often possible to define a "virtual" number of points for such a moduli space. However, these virtual curve counts may depend on which completion of the original moduli problem one has selected. The relationships between different virtual curve counts are the subject of a wide array of conjectures.

In this talk, I will describe several different ways of virtually enumerating the curves in a smooth variety with tangency conditions along a smooth divisor and explain the relationships between them. I will also discuss prospects for further comparisons.

See `http://math.bu.edu/research/geom/seminar.html` or contact Takashi Kimura *kimura@math.bu.edu* for more information.