



# GEOMETRY, TOPOLOGY, AND PHYSICS SEMINAR

## Knot contact homology and the augmentation polynomial

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Friday, November 8, 2013, 4:00 p.m.  
Room 6635 South Hall

**Abstract:** This talk is a more in-depth look at knot contact homology (following the colloquium from the previous day, though we'll start from scratch). We'll examine how this knot invariant can be used to produce a three-variable knot polynomial, the augmentation polynomial, which specializes to a "stable" version of the A-polynomial (in work of Chris Cornwell) and is conjecturally related to colored HOMFLY polynomials. We'll then discuss a conjectural interpretation of this polynomial that uses string theory and mirror symmetry (in joint work with Mina Aganagic, Tobias Ekholm, and Cumrun Vafa).

This seminar is part of the NSF/UCSB 'Research Training Group' in Topology and Geometry. Information about future meetings can be found at <http://www.math.ucsb.edu/~drm/GTPseminar/>