Temple University Mathematics Colloquium

Joel Hass

UC Davis and IAS

will speak on

Invariants of Random Knots

ABSTRACT: We study random knots and links using the Petaluma model, which is based on the petal projections developed by Adams. In this model we obtain a formula for the distribution of the linking number of a random two-component link. We also obtain formulas for the expectations and the higher moments of the Casson invariant and the order-3 knot invariant v_3. These are the first precise formulas given for the distributions of invariants in any model for random knots or links. We also use numerical computation to compare these to other random knot and link models, such as those based on grid diagrams.

February 15, 2016
Lecture at 4:00 pm
Coffee, tea, and refreshments from 3:40 pm
Room 617, Wachman Hall
Department of Mathematics