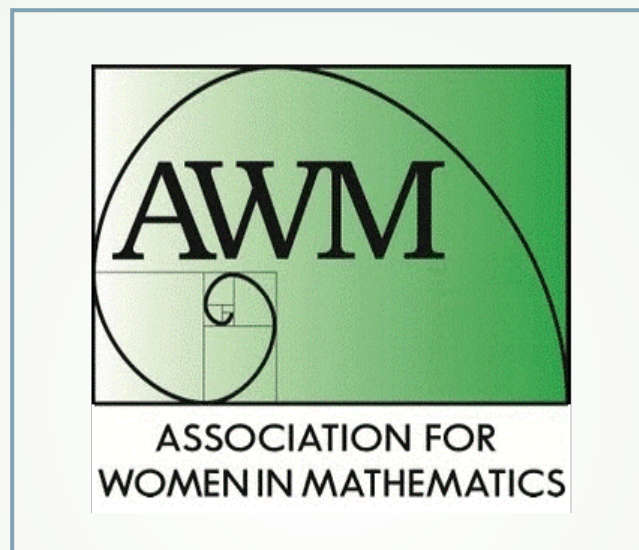**UB's AWM Lecture Series**

and

**Geometry & Topology Seminar Present:**

# DR. ABIGAIL THOMPSON

### FRIDAY APRIL 21, 2017
### AT 4:00PM

✵



Located in Math 122.

✵

# AN INVARIANT OF TRISECTED 4-MANIFOLDS

A closed, orientable 3-manifold M always has a Heegaard splitting, that is, M^3 can be described as the union of two handlebodies glued together along their boundaries. Gay and Kirby extended this idea to 4-manifolds, showing that any closed orientable 4-manifold M^4 can be described as the union of three 4-dimensional handlebodies, glued together (carefully) along their boundaries. They called this a trisection of M^4. I'll discuss their result, and describe a natural 4-manifold invariant, L(M^4), that arises from this decomposition. This is joint work with D. Gay and R. Kirby.