GABRIEL ISLAMBOULI, University of Waterloo

4-Manifolds and the Pants Complex

We show that every smooth, orientable, closed, compact 4-manifold can be represented by a loop in the pants complex. We use this representation, together with the fact that the pants complex is simply connected, to provide an elementary proof that such 4-manifolds are smoothly cobordant to connected sums of projective planes. This is joint work with Michael Klug.