1063-53-203   **Andrew Cotton-Clay*** (`acotton@math.harvard.edu`), Department of Mathematics, FAS, Harvard University, Cambridge, MA 02138. *Holomorphic Pairs of Pants in Mapping Tori.*

We reinterpret counts of holomorphic pairs of pants in $\mathbb{R}$ times a mapping torus for a symplectomorphism of a symplectic surface Σ as counts of index -1 triangles between Lagrangians in $\Sigma \times \Sigma$ for certain 1-parameter families of almost complex structures. We obtain a complete description of rigid holomorphic curves in the case $\Sigma = T^2$ and various pair-of-pants invariants for certain pseudo-Anosov symplectomorphisms on higher genus surfaces. We give applications to periodic Floer homology and to the symplectic field theory and contact homology of the natural stable Hamiltonian structure on the mapping torus. (Received August 16, 2010)

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