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Andrew Putman* (andyp@math.uchicago.edu), Department of Mathematics, University of Chicago, 5734 South University Ave, Chicago, IL 60637. *Infinite Presentations of the Torelli Group*.

The Torelli subgroup of the mapping class group of a surface is the group of mapping classes which act trivially on the first homology group of the surface. We will discuss a new presentation of the Torelli group whose (infinite) generating set is the set of all "twists about separating curves", "twists about bounding pairs", and "commutators of simply intersecting pairs" and whose relations come from a short list of topological configurations of these generators on the surface, such as the lantern relation. (Received September 25, 2006)