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Matthew B. Day*, 301 SCEN, Department of Mathematics, University of Arkansas, Fayetteville, AR 72701, and **Andrew Putman**. *Relations in the Torelli subgroup of $\text{Aut}(F_n)$* . Preliminary report.

The Torelli subgroup of $\text{Aut}(F_n)$ is the set of elements acting trivially on the abelianization of F_n . We study the intersection of the Torelli subgroup with the stabilizer in $\text{Aut}(F_n)$ of the conjugacy class of a primitive element in F_n . Using our earlier work on a Birman exact sequence for $\text{Aut}(F_n)$, we can produce interesting infinite presentations for this intersection. This is part of a program to produce an infinite presentation for the Torelli subgroup itself. (Received December 05, 2011)