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Leah Childers* (lchilders@pittstate.edu). *The Automorphism Group of the Hyperelliptic Torelli Group.*

The mapping class group is the group of orientation preserving homeomorphisms of a surface up to isotopy. A subgroup of the mapping class group of primary importance is the *Torelli group*, $\mathcal{I}(S_g)$, the kernel of the well-known symplectic representation of the mapping class group. We will discuss the structure of the *hyperelliptic Torelli group*, $\mathcal{SI}(S_g)$. Elements of $\mathcal{SI}(S_g)$ act naturally on the symmetric separating curve complex, $C_{\mathcal{H}}(S)$. We will discuss that when $g \geq 5$, $\text{Aut}(C_{\mathcal{H}}(S_g)) \cong \text{SMod}^{\pm}(S_g)/\langle \iota \rangle$, where $\text{SMod}(S_g)$ is the symmetric mapping class group and ι is a fixed hyperelliptic involution. Then we will give an algebraic characterization of Dehn twists about symmetric separating curves which will allow us to conclude that $\text{Aut}(\mathcal{SI}(S_g)) \cong \text{SMod}^{\pm}(S_g)/\langle \iota \rangle$. Note that this work does not rely on a generating set for $\mathcal{SI}(S_g)$. (Received September 24, 2012)