1154-20-1938 **Elizabeth Field*** (`ecfield2@illinois.edu`). *Trees, dendrites, and the Cannon-Thurston map.*
When $1 \to H \to G \to Q \to 1$ is a short exact sequence of three word-hyperbolic groups, Mahan Mitra (Mj) has shown that the inclusion map from H to G extends continuously to a map between the Gromov boundaries of H and G. This boundary map is known as the Cannon-Thurston map. In this context, Mitra associates to every point z in the Gromov boundary of Q an "ending lamination" on H which consists of pairs of distinct points in the boundary of H. We prove that for each such z, the quotient of the Gromov boundary of H by the equivalence relation generated by this ending lamination is a dendrite, that is, a tree-like topological space. This result generalizes the work of Kapovich-Lustig and Dowdall-Kapovich-Taylor, who prove that in the case where H is a free group and Q is a convex cocompact purely atoroidal subgroup of $\mathrm{Out}(F_n)$, one can identify the resultant quotient space with a certain $\mathbb{R}$-tree in the boundary of Culler-Vogtmann's Outer space. (Received September 16, 2019)