

1054-54-174

**Lisa Hernandez\*** ([lihernandez@calbaptist.edu](mailto:lihernandez@calbaptist.edu)), 8432 Magnolia Ave., Riverside, CA 92508.

*Girth: Discussions, Comments, and Corrections.* Preliminary report.

A knot diagram can be divided by a circle into two parts, such that each part can be coded by a planar tree with integer weights on its edges. A half of the number of intersection points of this circle with the knot diagram is called the girth. The girth of a knot is the minimal girth of all diagrams of this knot. The girth of a knot minus 1 is an upper bound of the Heegaard genus of the 2-fold branched covering of that knot. We discuss this invariant along with addressing errors in previous work. (Received September 13, 2009)