1077-57-2235   **Allison H Moore*** (`moorea8@math.utexas.edu`), The University of Texas at Austin, 1 University Station C1200, Austin, TX 78712. *Genus 2 mutation of knots.* Preliminary report.

Let F be a closed genus 2 surface in S^3, disjoint from a knot $K \subset S^3$, and equipped with the hyperelliptic involution τ. A genus 2 mutant of K is obtained by cutting M along F and regluing the two copies of F via τ. We will realize diagrammatic Conway mutation of knots as a specialization of genus 2 mutation in S^3, and explore some examples and properties of both, in particular how the Khovanov homology and knot Floer homology invariants behave with respect to genus 2 mutation. (Received September 21, 2011)