Christopher K Atkinson* (catkinso@morris.umn.edu), University of Minnesota, Morris, Division of Science and Mathematics, 600 E 4th Street, Morris, MN 56267, and Jessica Mallepalle, Joseph Melby, Shawn Rafalski and Jennifer Vaccaro. Guts and volume for a simple family of hyperbolic 3–orbifolds. Preliminary report.

If a hyperbolic 3–orbifold $O$ contains an orbifold incompressible 2–suborbifold $S$, one obtains a lower bound on the volume of $O$ in terms of the guts of the path metric completion of $O \setminus S$ by applying work of Agol, Storm, and W. Thurston. For a simple family of hyperbolic 3–orbifolds, we show how to explicitly compute this volume bound in terms of the topology of a incompressible 2–suborbifold and the singular locus of the orbifold. (Received August 29, 2016)