1146-05-448Joshua Cooper* (cooper@math.sc.edu), 1523 Greene St, Columbia, SC 29208, and Hays
Whitlatch and Peter Gartland. Minimum Bottleneck Weight of Random Pressing Sequences
and Related Processes. Preliminary report.

The "Pressing Game Conjecture" of Bixby, Flint, and Miklós asks whether a certain kind of Markov Chain mixes; if so, it can be used to sample from evolutionary histories connecting two organisms' genomes. We show that this is really a question about the minimum bottleneck weight of a certain metric space (permutations equipped with edit distance), and argue that a random instance is likely to provide a counterexample. This involves analyzing the geometry of a few random processes of increasing similarity to the pressing sequences of a random (simple pseudo-)graph. (Received January 28, 2019)