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David Bachman* (bachman@pitzer.edu), **Ryan Derby-Talbot**
(ryan.derby-talbot@fulbright.edu.vn) and **Eric Sedgwick** (esedgwick@cdm.depaul.edu).

Computing Heegaard Genus is NP-Hard.

We show that Heegaard Genus $\leq g$, the problem of deciding whether a triangulated 3-manifold admits a Heegaard splitting of genus less than or equal to g , is NP-hard. The result follows from a quadratic time reduction of the NP-complete problem CNF-SAT to Heegaard Genus $\leq g$. This is joint work with Ryan Derby-Talbot and Eric Sedgwick (Received March 03, 2020)