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Jonah Gaster* (jbgaster@gmail.com), Chicago, IL. *A family of non-injective skinning maps with a critical points.*

Certain classes of 3-manifolds, following Thurston, give rise to a ‘skinning map’, a self-map of the Teichmüller space of the boundary. Inspired by numerical evidence of Dumas and Kent, we examine the skinning map of a genus-2 handlebody with two rank-1 cusps. We exploit an orientation-reversing isometry to conclude that the skinning map sends a specified path to itself, and use estimates on extremal length functions to show non-monotonicity and the existence of a critical point. (Received February 10, 2013)