1158-57-267   **Joshua A. Howie*** (`jahowie@ucdavis.edu`), Department of Mathematics, University of
California, Davis, One Shields Ave, Davis, CA 95616. *An algorithm to decide if a link is
alternating.*

In previous work, the author found a characterization of alternating link exteriors and used it to produce a normal surface algorithm which can decide if a knot is alternating. Similar results were obtained independently by Greene, Juhász, and Lackenby. The author's algorithm relied on a theorem of Jaco and Sedgwick which is not true for manifolds with multiple boundary tori. Here we overcome this problem by a careful study of normal spanning surfaces and their aggregate slopes. Consequently, we produce a normal surface algorithm which can decide if a link is alternating. (Received March 02, 2020)