1125-57-1862Thomas W. Tucker* (ttucker@colgate.edu), 406 Williston Rd, Po Box 163, Sagamore Beach,
MA 02562, and Undine Leopold. Orientation-Reversing Euclidean Symmetry of Closed Surfaces
Immersed in 3-Space. Preliminary report.

Given a finite group G of isometries of euclidean 3-space E^3 and a closed surface S, an immersion $f: S \to E^3$ is in G-general position if f(S) is invariant under G, points of S have disk neighborhoods whose images are in general position, and no singular points of f(S) lie on an axis of rotation of G. For such an immersion, there is an induced action by G on S whose generalized Riemann-Hurwitz equation (GRH), that is, orbifold S/G with branching information, satisfies certain natural restrictions. We classify which restricted GRH are realized by a G-general position immersion of S. The authors had previously done this when G is orientation-preserving. Nearly always, if the usual Riemann-Hurwitz equation for the orientation-preserving subgroup G^o can be realized, so can the GRH for G. (Received September 19, 2016)