The correct statement at the beginning of §3 should have been that space \( \mathcal{P}_{sm}^R/\{\pm 1\} \) has 4 connected components. The space \( \mathcal{P}_{sm}^R \) actually has 5 connected components. More precisely, in the decomposition displayed in the first paragraph of §3, the spaces \( \mathcal{P}_i^R \) are connected for \( i = 0, 1, 2 \) while \( \mathcal{P}_3^R \) has two connected components, interchanged by negation. This does not affect the rest of the paper, in particular the classification of conjugacy classes of anti-involutions, since the map \( (x, y, z) \to (x, y, -z) \) induces an isomorphism between \( X_f \) and \( X_{-f} \).