1052-30-158 **Emilio Bujalance** and **Javier Cirre*** (jcirre@mat.uned.es). *A family of Riemann surfaces with orientation reversing automorphisms.*

We consider compact Riemann surfaces of even genus g with an orientation reversing automorphism f of order $2g$. A characterization of these surfaces by means of non-euclidean crystallographic groups is given. Most of these surfaces are asymmetric, that is, they admit no orientation reversing involution, and in fact this happens if and only if f generates the full group of automorphisms of the surface. We give a defining algebraic equation depending on three real parameters for each such surface (asymmetric or not) and also a formula for the automorphism f. An important feature is that the group generated by f is the unique cyclic group of order $2g$ generated by an orientation reversing automorphism of the surface. The Teichmüller space of these surfaces is a three dimensional submanifold of the Teichmüller space of Riemann surfaces of genus g. (Received August 26, 2009)