

1027-20-98

Jose Javier Etayo* (jetayo@mat.ucm.es), Departamento de Algebra, Facultad de Matematicas, Universidad Complutense, 28040 Madrid, Spain, and **Ernesto Martinez** (emartinez@mat.uned.es), Departamento de Matematicas Fundamentales, Facultad de Ciencias, UNED, 28040 Madrid, Spain. *The symmetric crosscap number of the groups $C_m \times D_n$.*

Every finite group G acts as an automorphism group of some non-orientable Klein surfaces without boundary. The minimal genus of these surfaces is called the symmetric crosscap number and denoted by $\tilde{\sigma}(G)$.

This number is related with other parameters defined on surfaces as the symmetric genus and the strong symmetric genus.

Here we obtain the symmetric crosscap number for the groups $C_m \times D_n$. As an application of this result we obtain arithmetic sequences of integers which are the symmetric crosscap number of some group. Finally we recall the several different genera of the groups $C_m \times D_n$. (Received February 20, 2007)