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Tessellations by Non-Euclidean Crystallographic Groups at the M. C. Escher's works

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We analize the non-Euclidean tessellations that one can find in M.C. Eschers production, through the techniques and algorithms that we have developed in recent papers. In particular, we construct the basic structure of the designs of some M. C. Eschers non-Euclidean mosaics by using the hyperbol package created for $Mathematica^©$ software, which allows one to obtain graphical applications of NEC groups. Some mirror polygonal tessellations of the hyperbolic plane with the quadrilaterals of Saccheri and Lambert are given.

The package is available at http://www.ugr.es/∼ruiz/software.htm