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**Jozef Siran\*** ([j.siran@open.ac.uk](mailto:j.siran@open.ac.uk)), Mathematics and Statistics, Open University, Milton Keynes, MK7 6AA, United Kingdom. *Non-orientable regular maps of any given type.*

A regular map is a graph embedding with the highest ‘level of symmetry’, that is, such that the automorphism group of the embedding is transitive (and hence regular) on flags. In a regular map, all vertices have the same degree, say,  $k$ , and all face boundaries have the same length, say  $m$ ; the pair  $(k, m)$  is the type of the map.

It is well known that for any given pair  $(k, m)$  such that  $1/k + 1/m \leq 1/2$  there exist infinitely many finite regular maps of type  $(k, m)$  on an orientable surface. This is a consequence of residual finiteness of triangle groups and it has been rediscovered a number of times in the past. A non-orientable analogue of this result was proved only very recently; we will discuss the proof and its implications. (Received September 16, 2013)