# Möbius regular maps on linear fractional groups

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A Möbius regular map $M$ is a regular map in which any two distinct adjacent vertices are joined by exactly two edges and the cycle of length 2 formed by these two edges is the centre of a Möbius band on the supporting surface of $M$.

Möbius regular maps were introduced in [1] under name cantankerous maps. Enumeration of all Möbius regular on two dimensional fractional linear groups over finite field can be found in [3]. We will present another approach to classification of Möbius regular maps with these automorphism groups.

## References

[1] S. Wilson, Cantankerous maps and rotary embeddings of $K_n$, J. Combin. Theory, Ser. B 47 (1989), 262–279.

[2] M. Conder, P. Potočnik, J. Širáň, Regular hypermaps over projective linear groups, J. Aust. Math. Soc. 85 (2008), 155–175.

[3] C.H. Li, J. Širáň, Möbius regular maps, J. Combin. Theory Ser. B 97 (2007), 57–73.