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Involutive birational transformations of arbitrary complexity in Euclidean spaces

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**Abstract:** A broad family of involutive birational transformations of an open dense subset of  $\mathbb{R}^n$  onto itself is constructed explicitly. Examples with arbitrarily high complexity are presented. Construction of birational transformations such that  $\phi^k = \text{Id}$  for a fixed integer k > 2 is also presented.

Keywords: rational mapping, birational transformation, involutive transformation AMS Subject Classification: 14E05

## References

- [1] Dolgachev I., Lectures on Cremona transformations, Ann Arbor-Rome, 2010/2011.
- [2] Dušek Z., Scalar invariants on special spaces of equiaffine connections, J. Lie Theory 20 (2010), 295–309.
- [3] Dušek Z., Kowalski, O., Involutive automorphisms related with standard representations of SL(2, R), Bull. Belg. Math. Soc. Simon Stevin 19 (2012), 523–533.
- [4] Gómez A., Meiss J.D., Reversors and symmetries for polynomial automorphisms of the complex plane, Nonlinearity 17 (2004), 975–1000.
- [5] Hartshorne R., Algebraic Geometry, Graduate Texts in Mathematics, 52, Springer, New York-Heidelberg, 1977.
- [6] Repnikov V.D., On an involutive mapping of solutions of differential equations, Differential Equations 43 (2007), no. 10, 1376–1381.