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Homotopy classes of rational functions. (Classes d'homotopie de fractions rationnelles.) (French) Zbl 1151.14016

C. R., Math., Acad. Sci. Paris 346, No. 3-4, 129-133 (2008).

Summary: Let k be a field of characteristic not 2 and $n \geqslant 1$ be an integer; we show that the set of "algebraic" homotopy classes of rational functions of degree n with coefficients in k can be endowed with a graded monoid structure. Moreover, there is an isomorphism between this monoid and the monoid of orbits under the action of $\mathrm{SL}n(k)$ of non-degenerate symmetric bilinear forms on k^n, endowed with the orthogonal sum.

MSC:

14F35 Homotopy theory and fundamental groups in algebraic geometry
14A15 Schemes and morphisms

Full Text: DOI

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