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Parabolic automorphisms of projective surfaces (after M. H. Gizatullin). (English)

[Zbl 1378.14036](#)

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Summary: In [*Izv. Akad. Nauk SSSR, Ser. Mat.* 44, 110–144 (1980; [Zbl 0428.14022](#))], *M. Kh. Gizatullin* classified rational surfaces endowed with an automorphism whose action on the Neron-Severi group is parabolic: these surfaces are endowed with an elliptic fibration invariant by the automorphism. The aim of this expository paper is to present for nonexperts the details of Gizatullin's original proof, and to provide an introduction to a recent paper by *S. Cantat* and *I. Dolgachev* [*J. Am. Math. Soc.* 25, No. 3, 863–905 (2012; [Zbl 1268.14011](#))].

MSC:

14J27 Elliptic surfaces

Keywords:

algebraic surface; rational surface automorphisms; Cremona group

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