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Automorphism group schemes of bielliptic and quasi-bielliptic surfaces. (English)
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Author’s abstract: Bielliptic and quasi-bielliptic surfaces form one of the four classes of minimal smooth projective surfaces of Kodaira dimension 0. In this article, we determine the automorphism group schemes of these surfaces over algebraically closed fields of arbitrary characteristic, generalizing work of C. Bennett and R. Miranda over the complex numbers [Rocky Mt. J. Math. 20, No. 1, 31–37 (1990; Zbl 0705.14042)]; we also find some cases that are missing from the classification of automorphism groups of bielliptic surfaces in characteristic 0.

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MSC:
14J27 Elliptic surfaces, elliptic or Calabi-Yau fibrations
14J50 Automorphisms of surfaces and higher-dimensional varieties
14G17 Positive characteristic ground fields in algebraic geometry
14L15 Group schemes

Keywords:
automorphisms; group schemes; bielliptic surfaces; quasi-bielliptic surfaces; hyperelliptic surfaces; quasi-hyperelliptic surfaces; positive characteristic

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