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**The group law on elliptic curves on Hesse form.** (English) [Zbl 1057.14038](#)

Mullen, Gary L. (ed.) et al., Finite fields with applications to coding theory, cryptography and related areas. Proceedings of the 6th international conference on finite fields and applications, Oaxaca, México, May 21–25, 2001. Berlin: Springer (ISBN 3-540-43961-7/hbk). 123-151 (2002).

Summary: We give an introduction to elliptic curves in Hesse form. The embedding of these curves in the projective plane make their symmetries especially nice. If we pick a point  $p$  in the projective plane s.t.  $p$  is not a 3-torsion point,  $p$  is the parametrization of the curve that contains  $p$ . We will also see that the division polynomials are independent of the chosen elliptic curve to Hesse form.

For the entire collection see [\[Zbl 0995.00009\]](#).

**MSC:**

[14H52](#) Elliptic curves

[11G05](#) Elliptic curves over global fields

Cited in **3** Documents

**Keywords:**

[Hesse pencil](#)