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La rationalité des schémas de Hilbert de courbes gauches rationnelles suivant Katsylo. (The rationality of the Hilbert schemes of rational skew curves according to Katsylo). (French)

Zbl 0696.14002

Algebraic curves and projective geometry, Proc. Conf., Trento/Italy 1988, Lect. Notes Math. 1389, 87-90 (1989).

[For the entire collection see [Zbl 0667.00008](#).]

Let H be the Hilbert scheme of rational curves of degree d in \mathbb{P}^n ($n \geq 2$). The paper shows that H is rational. This follows from Katsylo's theorem on the rationality of the scheme of invariants of binary forms [*P. I. Katsylo*, Math. USSR, Izv. 25, 45-50 (1985); translation from Izv. Akad. Nauk SSSR, Ser. Mat. 48, No.4, 705-710 (1984; [Zbl 0593.14017](#))]. The proof depends on the parity of d . For d even it is invariant theoretic and for d odd it depends on the local triviality of certain conic bundles.

Reviewer: [G.Horrocks](#)

MSC:

[14C05](#) Parametrization (Chow and Hilbert schemes)

[14H10](#) Families, moduli of curves (algebraic)

[14M20](#) Rational and unirational varieties

Keywords:

[Hilbert scheme of rational curves; rationality](#)