

**Karger, Adolf**

**Projective plane motions with infinitely many straight trajectories.** (English) [Zbl 0566.53020](#)  
*Apl. Mat.* 30, 36-49 (1985).

The only (non-trivial) euclidean plane motion with infinitely many straight trajectories is the elliptic motion; all trajectories of this motion are affinely equivalent. In the present paper the author classifies all projective plane motions with the property that each point of the (irreducible) inflexion cubic has a straight trajectory. These motions form a comparatively large class of motions and can be considered as projective Darboux motions.

Reviewer: [J.Hoschek](#)

**MSC:**

[53A17](#) Differential geometric aspects in kinematics

**Keywords:**

[elliptic motion](#); [projective plane motions](#); [inflexion cubic](#); [Darboux motions](#)

**Full Text:** [EuDML](#)

**References:**

- [1] H. Frank: Ebene projektive Kinematik. Dissertation Univ. Karlsruhe, 1968.
- [2] J. Tölke: Ebene projektive Kinematik I. II, III. *Math. Nachr.* 63 (1974) 167-185, 187-196; 68 (1975) 221-237. · [Zbl 0296.53005](#) · [doi:10.1002/mana.3210630114](#)
- [3] A. Karger: Affine Darboux motions. *Czech. Math. Journ.*, in print. · [Zbl 0597.53004](#)

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