## 2005 Vol. 43 No. 2 pp. 201-204 DOI:

Ermakov System and Plane Curve Motions in Affine Geometries QU Chang-Zheng

Center for Nonlinear Studies, Northwest University, Xi'an 710069, China Department of Mathematics, Northwest University, Xi'an 710069, China (Received: 2004-6-4; Revised: )

Abstract: It is shown that the Pinney equation, Ermakov systems, and their higher-order generalizations describe self-similar solutions of plane curve motions in centro-affine and affine geometries.

PACS: 02.40.-k, 03.40.kf, 02.30.Jr, 04.20.Jb

Key words: Pinney equation, Ermakov system, motion of plane curve, affine

geometry, symmetry group

[Full text: PDF]

Close